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THE CHEMIST AND DRUGGIST

ESTABLISHED 1859

THE WEEKLY NEWSPAPER FOR PHARMACY
and all sections of the drug, pharmaceutical,
fine chemical, cosmetic, and allied industries

*Official organ of the Pharmaceutical Society of Ireland
and of the Pharmaceutical Society of Northern Ireland*

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June 19, 1965

No. 4453

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The CHEMIST AND DRUGGIST

Volume 183

JUNE 19, 1965

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Hospital Drug Supplies PATENTEES' OFFERS "ACCEPTABLE"

THE Ministry of Health has announced that it has received from the patentees or licensees in the United Kingdom, acceptable offers for the supply of chloramphenicol, chlorpromazine and chlorthalidone for use in hospitals and the Armed Services.

Prices to be charged to hospitals for tetracycline and oxytetracycline are being negotiated concurrently with negotiations under the voluntary price regulation scheme by which prices charged for drugs used in the pharmaceutical services are settled. The Ministry has advertised for tenders for the supply of chlorothiazide and hydrochlorothiazide.

Scottish Executive

ELECTION RESULTS

THE following are the voting figures in the election for the Pharmaceutical Society's Scottish Department Executive:—

ELECTED

J. W. GOODCHILD	...	...	366
W. C. D. BAIN	...	...	364
R. S. MORRISON	...	...	322
D. C. MAIR	...	...	295
J. P. BANNERMAN	...	...	293
F. HEPBURN	...	...	293

NOT ELECTED

G. Calder	...	...	291
Miss D. I. L. Locker	...	...	266
R. S. Duncan	...	...	220
A. L. Dunlop	...	...	211
W. L. C. Imrie	...	...	183
R. A. Brodie	...	...	173
J. H. H. Groat	...	...	162
R. Shearer	...	...	157
A. Paxton	...	...	143
R. D. Noble	...	...	128
P. M. Goldberg	...	...	83

Number of voting papers issued, 2,800; returned, 889; 875 votes were recorded, fourteen votes having been spoilt.

Drug Labelling

CONSUMER COUNCIL PROPOSALS

THE Consumer Council has recently submitted to the Ministry of Health its recommendations on the content and presentation of information on labels of over-the-counter medicines. One proposal is that all medicines should be labelled with an official designation in addition to the brand name. The Council believes that provision of dosage instructions should be made compulsory and that information on contraindicated conditions should be given. Additionally any information on side-effects advised by the proposed statu-

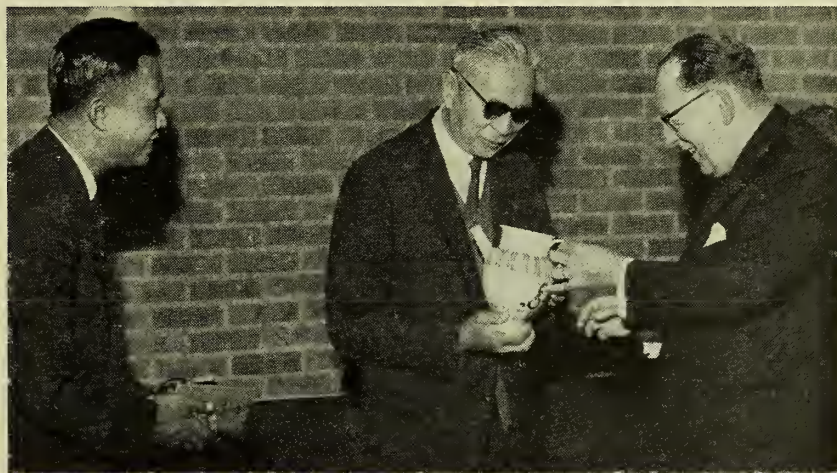
tory safety committee should appear. Habit-forming preparations should carry a warning of the dangers of addiction. A general warning to the user to consult his doctor if no relief is obtained from the recommended use of the preparation should be given. Where medicines are liable to deterioration an expiry date should appear. The Council suggests that to ensure legibility the size of type used on labels should be controlled according to the size of the container. Prescribed medicines should be subject to the same requirements as those sold over the counter unless the prescriber directs otherwise. The Council also wishes to see Government control of information given in medicine advertisements. Items they recommend should appear include name and address of the manufacturer; his licence number (under the proposed legislation) and details of contraindications. They also think that Merchandise Marks legislation should be revised to provide control of advertisements that mislead by implication rather than by positive mis-statement of fact. The Council states that any statutory committee dealing with safety of drugs should pay particular regard to whether consultants carrying out clinical trials

are part-time employees of the drug companies concerned. The consent of a patient should be obtained before including him in a clinical trial and direct payments to doctors or hospitals by drug companies, in connection with the use of their drugs, should be prohibited.

Monograph Changes

SECOND INTERNATIONAL PHARMACOPOEIA

DETAILS of proposed changes in the text of the second edition of the International Pharmacopoeia are contained in the twenty-first report of the World Health Organisation Expert Committee on Specifications for Pharmaceutical Preparations (World Health Organisation technical report series, 1965, No. 307, H.M. Stationery Office, price 3s. 6d.). A provisional text of the second edition has already been circulated to member states of W.H.O. for comment. The report is largely concerned with the revisions to the first edition that have been proposed by working groups, specialists, manufacturing companies, etc. The alphabetical arrangement of the monographs is being abandoned and the monograph on the basic drug will instead be followed immediately by the monographs on preparations of the drug. A number of revisions and additions to the general methods have been agreed upon and the Committee has approved a list of statements on the actions and uses of pharmaceutical preparations. Arrangements have been made to undertake a study on the assay methods of opium. The report



PRESENTATION TO A VISITOR: While visiting the research laboratories and pharmaceutical production units of May & Baker, Ltd., Dagenham, Essex, on May 31, the Minister of Public Health for Thailand (Phra Bamras Naradura) was presented with an antique drug jar. Seen making the presentation is Dr. P. B. Maxwell (right), the company's managing director. Accompanying the Minister is Dr. Mansawee Unhanand (left).

draws attention to the benefits to public health and international commerce that should result from the adoption by different countries of the same official specifications. Among other questions considered are the stability of pharmaceutical preparations and international non-proprietary names. The Committee approved basic principles for the selection, preparation and distribution of the International Chemical Reference Substances, especially in connection with their use for assays and tests of certain pharmaceutical preparations to be included in the new edition of the International Pharmacopœia. Three annexes to the report deal with the general problem of the quality control of pharmaceutical preparations, specific problems in the quality control of the iodinated radio-opaques, and a report on dexamethasone, one of the proposed chemical reference substances.

Pharmaceutical Industry

INQUIRY COMMITTEE SEEKS EVIDENCE

THE committee of inquiry into the relationship of the pharmaceutical industry with the National Health Service, under the chairmanship of Lord Sainsbury (see *C. & D.*, March 13, p. 253) is now prepared to receive written evidence from interested individuals and organisations. Memoranda of evidence should be sent direct to the secretary of the Committee, Mr.

BIRTHDAY

THE Birthday Honours list published on June 12 included the following:—

Baron

SIR RUSSELL CLAUDE BROCK (president, Royal College of Surgeons of England).

SIR HAROLD ROXBEE-COX (lately chairman, Council for Scientific and Industrial Research).

Companion of Honour

PROFESSOR P. M. S. BLACKETT (lately professor of physics, Imperial College of Science and Technology, University of London).

K.B.

(Knight Bachelor)

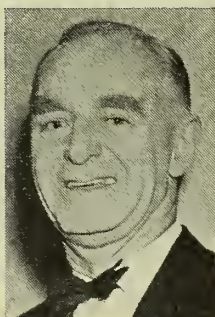
MR. R. S. CUMMING (chairman, Distillers Co., Ltd.). "For services to export."

MR. H. R. MACLENNAN (president, Royal College of Obstetricians and Gynaecologists).

MR. P. B. MEDAWAR (director, National Institute for Medical Research).



Mr. W. J. Tristram



Mr. G. Brearley

T. E. Dutton, 14 Russell Square, London, W.C.1. Evidence will be treated as confidential if that is requested. So far as possible, matters should be dealt with separately under the sections of the terms of reference (i.e., structure of the industry, commercial policies, patents, research, etc.). Although the Committee may invite persons and organisations to give oral evidence in support of their memoranda, it cannot undertake to hear oral evidence from all who submit memoranda.

Public Pharmacists

FIRST STEPS TO INCORPORATION

MR. J. D. Fennell was elected *Assistant Secretary* of the Guild of Public Pharmacists and co-opted to the Guild council at a meeting of the council held at 17 Bloomsbury Square on June 12. The other officers were all re-elected. Consideration was given to the advantages to the Guild of becoming a corporate body and it was decided that preliminary steps should be taken to that end. A report prepared by the planning and professional services committee after studying a questionnaire on manpower submitted to the Guild by the Pharmaceutical Society was approved and the Council decided to set up a working party to consider the function of pharmacists in the Hospital Service of the future. The secretary reported on the results of the inquiry into the storage of biological products

HONOURS

K.C.B.

(Knight Commander of the Bath)

MR. A. W. FRANCE (permanent secretary, Ministry of Health).

K.B.E.

(Knight Commander of the British Empire)

MR. S. P. CHAMBERS (chairman, Imperial Chemical Industries, Ltd.).

C.B.E.

(Commander of the Order of the British Empire)

MR. G. BREARLEY (director, Association of British Chemical Manufacturers).

MR. C. E. GALLAGHER (senior principal medical officer, Ministry of Health).

MR. E. A. J. MAHLER (deputy chief alkali inspector, Ministry of Housing and Local Government).

MR. W. J. TRISTRAM (a member of Council, Pharmaceutical Society of Great Britain). "For services to the National Health Service."

O.B.E.

(Officer of the British Empire Order)

MR. D. J. HADLEY (deputy divisional manager, chemical research division, Distillers Co., Ltd.).

MR. C. H. ROBINET (chief executive officer, Ministry of Health).

MR. K. W. THORNDYKE (lately civil defence officer, Boots Pure Drug Co., Ltd.).

M.B.E.

(Member of the British Empire Order)

MR. J. B. G. H. ARMSTRONG-PAYNE (chairman, Lavapine, Ltd.). "For services to export."

Imperial Service Order

MR. A. L. THOMPSON (principal, Ministry of Health).

in hospitals. It was decided that an article should be prepared for publication giving advice to hospital pharmacists on the matter. The Editor reported that he was preparing a special issue of the *Journal of Hospital Pharmacy* dealing with the week-end school recently held in London. Plans for future week-end schools were discussed. It was agreed that the secretary should draw the attention of branch secretaries to the importance of the special meeting of the Pharmaceutical Society being held at the Albert Hall on July 25. It was hoped that as many hospital pharmacists as possible would attend.

IRISH NEWS

THE REPUBLIC

Health Legislation

PROPOSALS TO BE PUT IN SIX MONTHS

MOVING an estimate for a sum not exceeding £11,223,300 to complete the amount necessary for his Department, the Minister for Health (Mr. O'Malley) said in the *Dail* on June 1 that he envisaged a reorganisation of the Health Services. Since taking office he had devoted a large part of his time to a comprehensive review of the services. He had had preliminary discussions with certain interested organisations and was arranging to meet others. When Mr. R. Barry (Fine Gael) asked the Minister to dispel the rumour that another commission was about to be set up to examine the health services, Mr. O'Malley replied, "Certainly." Replying to another query he said he would put his suggestions for new health legislation before the Government within the next six months. He was favourable to the idea of choice of doctor if that could be done and he was also aware of the high cost of drugs and medicines. Mr. O'Malley met his opposite number, Mr. W. Morgan, in Belfast, on June 3, when some aspects of cross-border co-operation in the field of medical facilities were discussed. Later Mr. O'Malley said the exchange of views had helped him in his examination of the health service.

THE NORTH

Health Services

1965-66 ESTIMATES

A NET increase of £5,580,700 in expenditure on Health and Social Services in Northern Ireland is estimated for the year 1965-66. Total net cost is expected to be £58,561,970 (1964: £52,981,270). £1,749,000 (£1,687,000) is provided for pharmaceutical services (fees, allowances and other payments to pharmaceutical chemists and other persons providing drugs and supplying appliances, and superannuation contributions for dispensing doctors) provided under the general health services and £1,405,000 (£1,340,000) for drugs dressings medical and surgical appliances and equipment supplied under the hospital authority services. £3,500,000 (£3,500,000) has been allocated for capital expenditure on hospital and specialist services and £4,000 (£11,000) toward the establishment and initial equipment and maintenance of health centres. Under miscellaneous services £30,000 (£30,000) has been allocated for vaccines, sera and other prophylactics.

NEWS IN BRIEF

THE Dangerous Drugs Act, 1965 (H.M. Stationery Office, price 1s. 6d.), consolidates the Dangerous Drugs Acts, 1951 and 1964.

HIGHER salaries for nursing and midwifery staff in the National Health Service have been agreed by the Nurses and Midwives Whitley Council. The new scales represent an overall average increase of slightly less than 11 per cent. and will run for two years.

BOOTS, Ltd., have been given Dean of Guild Court approval for plans to re-develop their Princes Street, Edinburgh, premises at a cost of £320,000. The new building is expected to be opened in September 1966. The design, which complies with the city's redevelopment plans, includes a set-back to the building at first floor level to provide a pedestrian way.

THE Board of Trade is considering an application for the allowance of drawback on yeast (dried or liquid) classified under tariff headings 21.06A and 21.07 (C)(5) imported to make for export yeast products for human consumption. Those wishing to support or oppose the application should do so in writing to the Board of Trade, Tariff Division, 1 Victoria Street, S.W.1, not later than July 5.

SPORT

Golf

ULSTER CHEMISTS' GOLFING ASSOCIATION, The inaugural competition for prizes presented by Evans Medical (Northern Ireland), Ltd., was held at Clandeboyne golf club on May 19. Mr. B. Flatley (captain) introduced Mr. F. Morrison (managing director of the company) who welcomed the large attendance and called upon Mr. C. Hall (treasurer of the Association) who had just completed fifty years' service with the company, to present the prizes. A vote of thanks was proposed to Messrs. Evans by Mr. W. H. Boyd and replied to by Mr. C. Hall. Results: 1, R. Bourke, 37 pts.; 2, W. J. Kennedy, 37 pts. Section A (points), D. Moncreiff, 36 pts. Section A (strokes), B. Flatley, 78 strokes. Section B (points), H. Hamilton, 36 pts. Section B (strokes), B. Flatley, 78 strokes. Section C (points), D. Bell, 35 pts. Section C (strokes), W. A. Boyd, 89 strokes.

IRISH CHEMISTS' GOLFING SOCIETY. Upwards of ninety members turned up for the annual outing of the Society in Tramore, May 23-26. Weather was ideal and the event was generally agreed to have been an outstanding success. Mr. A. C. Martin presented the prizes donated by Imperial Chemical Industries, Ltd., and Mr. R. D. Arnold (captain) the remainder, at a winding-up dinner. Results: May 23, Imperial Chemical Industries, Ltd., prizes: Strokes, 1, R. D. Arnold (14), 72; 2, F. Reen (18), 72; Par, 1, F. McKenna (9), 1 up; 2, B. Nutty (9), 1 up. Class A, M. L. Cashman. Class B, M. Bermingham, May 24. Par (singles), Class A, 1, E. J. Connolly (11), 5 up; 2, J. Brosnan (6), 3 up; 3, A. Hennessy (11), 2 up. Class B, 1, P. J. Hickey (14), 1 up; 2, J. Hogan (18), 2 down; 3, T. Hogan (15), 3 down. Handicaps (19 to 24), E. O'Sullivan, May 25. Committee prize, S. O'Neill (12), 66. Strokes, 1, T. J. Lynch (7), 67; 2, J. Hanley (7), 69; 3, R. D. Arnold (12), 70. Par, 1, P. Delaney (5), 3 up; 2, J. Brosnan (5), 2 up; 3, A. Hensey (14), all square. Handicaps (19-24), J. Kennedy, May 26. Captain's prize, F. Reen (17), 40½. Class A, 1, P. Fahey (8), 41; 2, R. Tierney (10), 40½; 3, J. Hanley (6), 39½; 4, R. Daly (7), 39½. Class B, 1, M. Hughes (20), 39½; 2, A. C. Martin (22), 39½; 3, J. Burke (17), 37½; 4, J. Keogh (23), 36½. Class 1, N. Mockler. Class 2, M. Bermingham. Class 3, M. Murphy. Past Captain's prize, J. J. Howard.

TOPICAL REFLECTIONS

By Xrayser

Sunday, July 25

The heading is the date of the special general meeting of the Pharmaceutical Society in the Royal Albert Hall. My reference to the meeting last week contained an error in the date, and although there will be frequent references to the meeting in the coming weeks, it is better that I put the matter right in this column at the earliest opportunity. I should not like anyone to think that these paragraphs constitute a Fifth Column.

New President

I should like to add my congratulations to the many that have been offered to Mr. J. C. Bloomfield on his accession to the presidency of the Pharmaceutical Society. He takes office at a crucial time in the affairs of the Society, both in its internal affairs and in the light of impending new legislation, and he will need all the help he can get from a vigilant and far-seeing council. Few of his many predecessors have taken office with such a weight of responsibility. The retiring president (Mr. C. W. Maplethorpe) has not spent the past two years on a bed of roses, for he has found himself on two occasions in an unenviable situation. The first was in the autumn of 1963, when a special general meeting expressed itself forcibly—and I think wrongly—on the question of professional and premises fees. The other was on the occasion of the annual meeting a month ago, when circumstances made it quite impossible to conduct an orderly meeting. Nevertheless, I should be surprised if Mr. Maplethorpe did not feel a sense of disappointment that he was not to be in a position to finish the job started on the evening of May 19. He can look back on his term of office with considerable satisfaction, despite the occasions on which the barometer readings reached a record "low." The new Council must address itself to the problems connected with the coming legislation on medicines.

Distribution of pharmacies

Limitation of opening of new pharmacies and the need for controlling registration of premises engaged the attention of branch representatives of the Pharmaceutical Society at their recent meeting in London. The policy of *laissez-faire* has sufficed over many years to give the public a reasonably accessible pharmaceutical service. In none of the great cities was it necessary to travel far to secure the services of a pharmacist, usually within easy walking distance. Similarly, few small country towns or even large villages were without a pharmacy. Such came into being in many cases not because there was a specific demand, but because there was an excess of pharmacists for the posts available, particularly following the large increase in the numbers coming on to the register after the war of 1914-18. But there have been many changes in the way of life in the intervening years. The need for housing an expanding population could be met most expeditiously by building in what, but for the introduction of modern transport, would have been regarded as inaccessible places only a few years previously. New possibilities for pharmacies were thus opened up, though in many cases the decline of the inhabited centres of cities led to a changing pattern of distribution. Today, older pharmacists who would like to retire find themselves unable to dispose of their life's work, and that applies to the country towns as well as to the cities, while some new housing areas are without a service of any kind. It seems to be obvious that the provision of a pharmaceutical service under a National Health Service can no longer be left to chance, and that a planned distribution of pharmacies—and pharmacists—must be squarely faced if we are to retain our primary function. The responsibility of ensuring an adequate service is that of the Government, but pharmacy itself must, from its knowledge and experience, produce the plan—in its own interest as well as that of the public. It is inevitable that some of the freedom and independence of the past will be lost in the process, but the Report on the General Practice of Pharmacy has put the matter clearly. It is not only, as Mr. Adams said, a question of saying that a pharmacy cannot be opened *here*, but equally one of saying that one should be opened *there*.

Irish Pharmaceutical Association

FIRST ANNUAL MEETING

AN appeal to all pharmacists to join the Irish Pharmaceutical Association was made at the first annual meeting of the Association, held in the College of Pharmacy, Dublin, on May 31.

Welcoming present members, COMMANDANT B. J. ANDERSON (president), stated that the original executive committee had consisted of thirteen members, representing seven pharmacy groups, and two observers from the Pharmaceutical Society of Ireland. Since its formation the committee had met on twenty-three occasions and had organised the last Pharmacy Week, which had stimulated much interest. The officers had also attended two meetings in Cork where the next Pharmacy Week was being held, and which had been arranged to coincide with the annual meeting of the Society and the October Council meeting. Recalling the successful symposium at which the rôle of the pharmacist in the national health service had been debated, he said the Association had complete confidence in those who were entrusted with the task of preparing terms under which pharmacists would be prepared to participate in such a service.

The Association had decided, said the president, to bring out a quarterly journal, and steps were being taken to acquire premises for a headquarters that would also be used for social activities.

Pharmacists' Salaries

Declaring that in recent years negotiating licences had been granted to certain professional bodies he said if members thought it desirable, the Association would explore the possibility of obtaining such a licence. At present it was considered that the remuneration of pharmacists did not adequately reward them for their statutory responsibilities and compared unfavourably with the salaries of other professional groups. That was a matter of the utmost importance if the profession was to take its proper place in society. It was proposed to establish a reference library in the new headquarters and the possibility of establishing a scholarship scheme would also be considered.

MR. J. E. BURRELL (vice-president) in the absence of Mrs. Darcy, read the treasurer's report which disclosed that subscriptions totalling £104 4s. had been received during the year. "Our crying need is members and more members," he said. Proposing the adoption of the president's report, the President of the Pharmaceutical Society of Ireland (MR. J. P. O'DONNELL), said that for an organisation which had not yet fully cut its teeth, the achievements of the Association were particularly noteworthy. By now, pharmacists were convinced that this was not "just another group." It was a unique Association, representative of almost all the different groups in pharmacy. One other group he would very much like to see represented concerned those in industry. It would take a few years' yet

before the Association's potential was fully realised. He complimented the president and the other officers on the success of the Association. Seconding, MRS. M. TOOMEY (chairman, Association of Hospital and Public Pharmacists), said that any Association that was prepared to meet twenty-three times in a year could not fail to succeed. She was satisfied that all the hard work that had gone into the organisation would bear fruit in the near future.

Bridging the Gap

Proposing the adoption of the treasurer's report, MR. M. C. MARTIN (Irish Pharmaceutical and Medical Representatives' Association) wished the Association every success and pledged the support of all members. Seconding, MR. P. J. O'SULLIVAN (Irish Pharmaceutical Students' Association), said his organisation was pleased to have been admitted to membership. Such admission helped to "bridge the gap" between the student and the qualified pharmacist and meant that students would be more familiar with pharmaceutical affairs when they reached the stage of qualifying.

MR. T. R. MILLER said he had always felt strongly about the need for a professional journal that "spoke the language" of the Association. The proposed journal would be the mouthpiece of the Association and would be the platform from which the policy of the Association would be put across. He congratulated the committee

which, he said, had done "a marvellous job of work" in launching the Association.

MR. SHANNON (chairman, Social Foundation Committee) said they would shortly set about procuring the new headquarters. Some delay had been experienced in transferring monies on hand from the social committee to the Association but everything was in order now. MR. D. J. KENNELLY spoke of his pleasure at having been present at the inauguration of the Association and appealed to all pharmacists to grasp the full meaning of the important word "co-ordination." This was the age of pressure groups and pharmacists must rally together. Referring to Pharmacy Week, he said he thought only the registrar and himself were fully aware of all that the Association had done to make it such an outstanding success. He had been proud at the manner in which each function had been organised. He could not stress too strongly the need to support the Association in its work for the betterment of all members. Further praise for the achievements of the Association came from MR. R. C. O'HIGGINS who also supported the decision to launch a professional journal. His only regret was that it would be coming out only four times a year.

Amendments to the constitution of the Association, which had been prepared by the Society's legal adviser, were unanimously adopted on the motion of MR. D. WALSH, seconded by MR. J. TRAVERS.

TABLET IDENTIFICATION

Mr. C. McArdle addresses meeting in Dublin

IN the presence of a large gathering of pharmacists and members of the medical profession, MR. C. MCARDLE (chief pharmacist, Birmingham General Hospital), demonstrated his technique for the rapid identification of tablets in the College of Pharmacy, Dublin, on May 19. Assisted by Miss Eileen A. Skew, he identified in a matter of seconds, with the aid of a vibratory sorter and punched card system, a tablet chosen at random by the Dean of the College (Professor R. F. Timoney). Welcoming Mr. McArdle and Miss Skew, MR. M. L. CASHMAN (vice-president, Pharmaceutical Society of Ireland), said the Society had a particular interest in the establishment of some form of poisons' centre—an interest that had been stimulated by activities in this field in other countries. The matter was one of great importance to pharmacists because of the numerous occasions on which they were asked for information—often required in a hurry—regarding toxic substances.

The Society was also interested because of the considerable number of new preparations coming on the market, about which adequate information was not always available. It was necessary to have a centre where data on those products could be quickly co-

ordinated and made readily available for emergency purposes. Individual pharmacists could not be expected to assimilate all details on the multiplicity of new products for household, horticultural and agricultural use as well as those in use by the medical profession. Too often, drugs were abused with serious, and sometimes tragic, consequences. Those from whom help was sought had not always the necessary knowledge to help as quickly as would be possible if such products were indexed and properly classified.

MR. McArdle referred to the "amazingly high proportions" of cases of acute poisoning and said that the considerably increased quantities of drugs in solid dosage forms now being used had, coupled with increasing potency, obviously raised the poisoning potential. Careful labelling and cautionary warnings on packages, were of little avail if parents were careless—not to mention the difficulties of the aged with impaired senses and failing memory.

Opinions were divided on the value of coding systems and the inherent danger might well outweigh the advantages since any increase in self-medication or prescribing by numbers must be strongly deprecated. Pointing out that a serious effort must be made to educate the public into the dangers of

allowing poisons to be left in exposed places, he said that THE CHEMIST AND DRUGGIST had published various charts that had been very helpful. Stating that he believed the sale of aspirins should be limited to pharmacists he said in England recently five school boys had been admitted to hospital after taking a total of 100 aspirins "for a bet." A survey showed that 80 per cent. of girls in a classroom carried aspirins—possibly due to the influence of advertising. The need was to educate the public.

Manufacturers' Co-operation

Mr. McArdle told his audience that in the system he had demonstrated he had had almost 100 per cent. co-operation from drug manufacturers. Drug control should rest with the Pharmaceutical Society. It was a basic truth that all medicines were dangerous. Under his system, tablets could be identified "over the 'phone." Replying to PROFESSOR TIMONEY he said the total cost of the apparatus was about £150. An American tablet had been identified by the system, and with an increase in tourist traffic they should aim at operating on an international basis. Mr. McArdle also spoke of the need for giving careful instructions to avoid mistakes by people not familiar with the language of the country. Accidents had happened to immigrants to Britain through this language difficulty. If the retail pharmacist phoned the nearest poisons' centre he could be supplied with all necessary information. When tablets had been examined once a month for deterioration of colour investigators had been quite surprised at the constancy of the colours. MR. CASHMAN said he had been stimulated by the information, which had given him a new interest and extra sense of warning concerning everyday poisons. Proposing a vote of thanks, PROFESSOR TIMONEY said he had been fully vindicated in his decision to request the Society to invite Mr. McArdle and Miss Skew to lecture. He hoped it would result in an effort being made to establish a poisons' centre in Dublin, and suggested that the Pharmaceutical Society of Ireland would be the most qualified to operate such a system. They had no doubt that the system was a very efficient one. It was badly needed in Dublin and other parts of the country.

PROFESSOR PAUL CANON (head of the department of pharmacology, University College, Dublin), seconding, said that, speaking as a doctor, he appreciated the need for such a system. He hoped the Pharmaceutical Society of Ireland would realise they had an important rôle to play in this matter. Birmingham had been setting the pace and he had been most impressed by the wealth of vital facts. Mr. McArdle was very fortunate to have such expert assistance from Miss Skew. Mr. McArdle replied that if they could in any way help their fellow-pharmacists in Ireland they would be the first to do so. He added that he had been asked to convey the best wishes of Birmingham Branch of the Pharmaceutical Society of Great Britain to the Society.

DRUG TESTING IN SCOTLAND

Model scheme circulated to Executive Councils

DETAILS of the new scheme for testing drugs and appliances supplied under the National Health Service in Scotland are announced in a circular from the Scottish Home and Health Department to Executive Councils. The model scheme provides for samples to be selected for testing by an inspector of the Pharmaceutical Society of Great Britain acting as agent of the Executive Council (inspectors will be those appointed by the Society under the Pharmacy and Poisons Act, 1933 and operating in Scotland, or registered pharmacists nominated by the Society).

In the course of a year samples will be taken for testing from about two-thirds of all the pharmacies in Scotland. Chemists must permit inspectors to enter their place of business at any time when it is open for the supply of pharmaceutical services. The inspector may select for testing any drug or appliance that has been dispensed by the chemist under the National Health Service (Scotland) Acts, and which is awaiting collection by the patient. After selection of the item for testing the chemist is required to dispense the prescription again so that it is available for the patient concerned. The inspector will prepare four copies of the prescription and after verifying that the particulars are correct, the chemist is to countersign them. The quantity dispensed is to be ascertained in a similar manner to that obtaining in the England and Wales scheme, but division into three approximately equal parts will be by the inspector. Containers will be sealed with a seal provided by the Pharmaceutical Society and the chemist may, if he wishes, affix his own seal in addition. [For the purpose of the scheme "Pharmaceutical Society" means the Scottish Department of the Pharmaceutical Society of Great Britain.]

Of the three parts, one will be forwarded by the inspector to the Pharmaceutical Society, one left with the chemist (for independent analysis if required) and the third sent by the inspector to the clerk of the Executive Council for submission to a referee in case of dispute, or if the Council so wishes. Two of the four forms will be left with the chemist, one for retention, the other to be forwarded to the Drug Accounts Committee (Scotland) as a claim in respect of the dispensing of the duplicate prescription, the original prescription being sent to the Committee in the usual way. In the case of an appliance the inspector and the chemist in the presence of each other shall pack the dispensed item securely and seal the package which is then to be forwarded to the Pharmaceutical Society. The Society "shall take the necessary steps to have such drugs and appliances analysed or tested, as appropriate" and an official certificate of analysis will be issued.

When dispensing is in accordance with the prescription, the Society will notify the Council and the Council will notify the chemist. In the case of a deviation from the prescription

the Society will send to the Council the official certificate of analysis and its report as to whether or not in its view the deviation was substantial, together with a recommendation as to the action that might be taken. On the basis of that information the Council will decide whether an investigation by the Pharmaceutical Service Committee appears necessary. The Council will notify the chemist if it considers no investigation is necessary; otherwise the Council must supply the chemist concerned with a copy of the certificate and inform him that the matter is being referred to the Committee. Arrangements for check analyses are again similar to those in England and Wales.

Where the Pharmaceutical Society is of the opinion that the original container used by the chemist is of a type unsuitable for its purpose or it is otherwise defective they may send their report on the matter to the Council together with the container and the Council will decide whether an investigation by the Pharmaceutical Service Committee appears necessary.

The Secretary of State for Scotland recommends that Executive Councils should, after consultation with Local Pharmaceutical Committees, adopt schemes on the lines of the model. He would not wish to approve schemes differing materially from the model. It is proposed that the schemes should be in operation by July 1, or so soon as possible thereafter.

IN PARLIAMENT

QUESTIONS about imported preparations were asked in the House of Commons on June 14, when DR. WYNDHAM DAVIES asked the Minister of Health if he was aware of the statement made by the City Analyst of Birmingham that cheap drugs imported from the Continent as raw material and used for the National Health Service under Section 46 of the Patents Act had led to failures in quality; what was his policy in the matter; and if he would take steps to protect National Health Service patients against dangers to health presented by cheap foreign drugs imported "under Section 46." MR. KENNETH ROBINSON (Minister of Health) replied "I do not accept that drugs imported for hospital use under Section 46(1) of the Patents Act have failed in quality or have represented any danger to health, nor that the recent Birmingham report has said so. Apart from the certificates of analysis provided by the overseas manufacturers whose production arrangements have been inspected by my officials, a sample of each batch has been analysed by the Government chemist before the batch has been released to hospitals. Similar arrangements for quality control will be made for any future imports of drugs under Section 46." DR. DAVIES asked the Minister "if he is aware of the statement made by the City Analyst of Birmingham concerning quality control by pharmaceutical firms producing drugs in this

country and their methods of dealing with complaints and what is the Government's policy on this matter." MR. ROBINSON: "I have seen a report of an interview on the subject of quality control with the Research Chemist of the Birmingham Analytical Laboratories. It is the Government's intention to introduce as soon as Parliamentary time permits, comprehensive medicines legislation which will include provisions designed to secure adequate quality control."

LEGAL REPORTS

Injunction Agreed

BY consent an injunction was granted in the High Court, London, on June 15, to Johnson & Johnson (Gt. Britain), Ltd., Bath Road, Slough, restraining Mr. Montague Haberfield and Mr. Monty Isaac Cohen, trading as Sheldons, Market Row, Brixton, London, from selling Johnson's products, exempted for the purposes of the Resale Prices Act, 1964, at other than the fixed prices. An order was made for an inquiry as to damages and for the defendants to pay costs. Counsel for Johnson & Johnson said the injunction would be operative pending the result of the application under the Resale Prices Act. If the Restrictive Practices Court ruled that the prices could not be enforced, then the injunction automatically would not bind the defendants.

Under the Influence of Drugs

WHEN police swooped on a Manchester flat they found several young people under the influence of drugs, Manchester magistrates were told on June 10. One of them was Alan Ferguson, aged 21, of Bedford Road, Birkenhead. Charged with Ferguson with possessing or receiving dangerous drugs were Gerald David Butler, aged 20; Francis William Joseph Connor, aged 18; John Alfred Umbers, aged 17; Tamara Christine Imelda-Hynson, aged 23; all of Palatine Road, Withington; Cynthia Mary Rogers, aged 17, of Wakegreen Road, Birmingham; and a 15-years-old girl. Accused of shopbreaking and theft was Terence Patrick Finnigan, aged 18, also of Palatine Road. They were all remanded in custody for one week. A police officer said police raided the flat and found all the accused. "In the flat was discovered a large quantity of dangerous drugs ranging from prepared opium and cocaine down to purple heart tablets," he said. Later the accused were all examined, and all except Finnigan were found to be under the influence of drugs.

NEW COMPANIES

P.C.=Private Company, R.O.=Registered Office.

CHURCH ROAD PHARMACY, LTD. (P.C.).—Capital £1,000. To carry on the business of manufacturing, dispensing and wholesale and retail chemists, etc. Subscribers: William J. Reichmann, 10 Kingsdown Avenue, London, W.3, and Donald E. G. Wing.

JOHNSONS-H.P.L., LTD. (P.C.).—Capital £100. To acquire all or any of the shares, stock and other securities of Johnsons of Hendon (Holdings), Ltd., and Hunter-Penrose-Littlejohn, Ltd. Power is taken to carry on business of manufacturers of and dealers in photographic chemicals and apparatus, etc. Subscribers: Sylvia J. Tansley and Marion Simmons, 59 Gresham Street, London, E.C.2.

RECORD SALES AGAIN

Largest multiple's continued progress

THE report by the chairman of Boots Pure Drug Co., Ltd. (Mr. Willoughby R. Norman) on trading for the year ended March 31 states that the company's world sales reached a record £130 millions. Retail sales increased by 9.2 per cent. on the previous year. Pre-tax profits increased by 20 per cent. for the second year running. The shop modernisation programme, originally scheduled to take until 1970, will, it is stated, be completed within two or three years. 254 shops have been brought up to date during the past twelve months. A planned expenditure of a further £4½ millions during the forthcoming year will enable the company to modernise a further 260 shops.

Welcoming the establishment of the committee of inquiry in the pharmaceutical industry under the chairmanship of Lord Sainsbury, Mr. Norman points out that almost all the discoveries and developments of new drugs have been made by industrial concerns and that the cost of such work must therefore come from the profits of their operations. It is disturbing to note that the level of pharmaceutical research expenditure in this country is not increasing proportionately to the value of the output. This trend will put the British pharmaceutical industry at an increasing disadvantage with its overseas competitors. It is wrong that we should be beholden to other countries—and particularly to America—for pro-

gress in this field. Mr. Norman adds that his company is now spending about £1 million a year on research and development.

Commenting on dispensing business, Mr. Norman says that the number of prescriptions dispensed has increased since the removal of the 2s. charge, but it is too early to say what the permanent effect is likely to be. Including private prescriptions, "which also show a steady increase," the total value of all prescriptions dispensed was about £19 millions. The introduction of a five-day, forty-hour week is reported to have proved popular with the company's staff. "Unfortunately, because of the national shortage of pharmacists most of our managers cannot themselves share in this improvement in conditions of service."

Home wholesale business amounted to just under £4 millions and sales of prescription products and pharmaceuticals to other chemists continued to increase. Direct exports for the year increased by 8 per cent. to a total of £2½ millions, but goods exported from Nottingham represented only one-quarter of the sales of overseas companies.

On prices, Mr. Norman says that while it remains the company's policy not to initiate price-cutting, "we cannot tolerate our market being captured by other people by this means, nor can we offer our customers inferior value to what they can get elsewhere."

COMPANY NEWS

Previous year's figures in parentheses

GLAXO GROUP, LTD.—Mr. J. G. Beevor has been elected to the board. **B.D.H. GROUP, LTD.**—Dr. J. Taylor has joined the board. He fills the vacancy resulting from the recent retirement of Sir Geoffrey Eley, C.B.E., from the chairmanship and the board.

CHESEBROUGH-POND'S, LTD.—Mr. M. Dungey (formerly general manager, marketing) has been appointed to the board as market development director. He is succeeded by Mr. H. Scrimgeour (formerly group product manager). Mr. G. Fearnley (formerly national grocery sales manager) is appointed general manager, sales.

WILKINSON SWORD, LTD.—A dividend rate of the same order as that for 1964, with the possibility of a better rate, was forecast by the chairman (Mr. H. B. Randolph) at the company's annual meeting (the first as a public company) on June 10. Mr. Randolph said that the company had many products they were hoping to bring to fruition on the markets of the world within the near and more distant future as a result of the company's great research strength.

GREEF-CHEMICALS HOLDINGS, LTD.—Final Ordinary dividend of 6½ per cent. is proposed making, with the interim dividend of 3½ per cent. paid in December, 1964, a total of 10½ per cent. for 1964 (representing an increase of 0.9 per cent. when compared with the 12 per cent. paid on the 1963 capital). Group profits for the year £380,644 (£351,906). After deducting

tax of £163,560 (£153,827) and transferring £37,000 (£28,584) to revenue reserve, the net balance was £180,084 (£169,495).

ODEX RACASAN, LTD.—Net profit attributable to the group for the year ended March 31 revealed in the first annual report was £72,851. A final dividend of 15 per cent. is proposed by the directors. Profit before tax was £146,497; taxes £73,646. Of the subsidiary companies a turnover increase of 14½ per cent. over 1963-64 is reported for Odex, Ltd., and of 13½ per cent. for Racasan, Ltd. The chairman (Mr. R. A. Chandler) states that although the implications of the recent changes in company taxation are not yet entirely clear, it should be possible in future to put to reserve a similar sum to that arising this year and to maintain the ordinary dividend at 25 per cent.

DETAILS of a proposed merger between Johnsons of Hendon (Holdings), Ltd., and Hunter-Penrose-Littlejohn, Ltd., by means of a new holding company which has been formed under the name of Johnsons-H.P.L., Ltd. (see col. 1), have been forwarded to their respective members with a strong recommendation from the boards of both companies that the scheme should be approved. Hunters are understood to have adequate facilities for the manufacture of equipment while Johnsons have capacity for research development and manufacturer of chemical products for the engraving and lithographic trade. It is expected that the

scheme will become effective on August 2. The merger is also expected to lead to increased opportunities for expansion of business both at home and abroad.

TAKEDA CHEMICAL INDUSTRIES, LTD.—Mr. C. Takeda (president) says in his report for the six months ended March 31, that during the period the Japanese economy saw a favourable upturn in the balance of international payments, aided by a sharp increase in export trade. However, other circumstances have remained unfavourable and the pharmaceutical industry has continued to face increasing sales competition and problems such as a rise in "medicare" expenses and a revision in standard prices of listed medicines under the health insurance programme of the Ministry of Health and Welfare. Despite the difficult situation the company's sales and earnings for the period at Yen48,758 millions and Yen3,122 millions were up Yen2,327 millions and Yen136 millions, respectively, on the preceding period. Exports increased by about 28 per cent. over the preceding period.

BUSINESS CHANGES

MAYFAIR PHOTOGRAPHIC have moved to Kildare Close, Ruislip, Middlesex (telephone: Pinner 8856).

DU PONT CO. (UNITED KINGDOM), LTD., are moving to Du Pont House, 18, Bream's Buildings, Fetter Lane, London, E.C.4, on July 19.

MR. J. W. HURST, M.P.S., F.B.O.A., has closed his pharmacy at 38 Newlands Park Drive, Scarborough, Yorks. All further communications should be sent to 27 Scardale Crescent, Scarborough.

THE National Research Development Corporation has moved to new offices. Its postal address is now P.O. Box Number 236, Kingsgate House, 66 Victoria Street, London, S.W.1 (telephone: Tate Gallery 3400).

SUNBEAM ELECTRIC, LTD., have moved their London sales office to Radnor House, London Road, Norbury, London, S.W.16 (telephone: Polards 8671. Telex: 24576). The London service station remains at 14 Old Quebec Street, London, W.1.

Appointments

RADIOL CHEMICALS, LTD., have appointed Mr. F. M. Dickin their Midlands area representative.

DREAMLAND ELECTRICAL APPLIANCES, LTD., have appointed Mr. L. W. Johnson, A.Inst.M.S.M., area manager for London and the South.

PERSONALITIES

COUNCILLOR B. A. PORTER, M.P.S., has been elected deputy mayor of Canterbury, Kent.

MR. R. C. FEATHER, M.A., B.Sc., F.R.I.C., M.I.Chem.E. (chairman and managing director, Meggeson & Co., Ltd.), has been re-elected chairman of the governors of Twickenham College of Technology and re-appointed a governor of Isleworth Polytechnic.

MR. B. H. SMITH, M.P.S., D.B.A., and Mrs. Smith have been invited to a

garden party at Buckingham Palace on July 7. Mr. Smith is chief pharmacist at Withington Hospital, Manchester, and registrar to the Guild of Public Pharmacists.

MR. J. G. BEEVOR, O.B.E., who has been elected to the Board of Glaxo Group, Ltd. (see p. 626), was from 1956 to 1964 vice-president of the International Finance Corporation in Washington, D.C., which is part of the World Bank organisation. He is a director of Williams Deacons Bank and of industrial development finance companies in Morocco, Nigeria and Turkey. From 1954 to 1956 he was managing director of the Commonwealth Development Finance Co., Ltd. Mr. Beevor was educated at Winchester and New College, Oxford.

DR. J. TAYLOR, M.B.E., D.Sc., who has joined the B.D.H. Group, Ltd. board (see p. 626), joined the Nobel Division of Imperial Chemical Industries, Ltd., in 1928, subsequently becoming first research director then joint managing director of the division. From 1952 to 1964 he was a director of the main I.C.I. board. He has also been chairman and on the boards of a number of major metal companies, and has published a number of works on explosives, the modern chemical industry, metals, and rocket propulsives.

MARRIAGES

CHAMBERS—YEOMANS. — At Leicester, recently, Mr. John Ernest Chambers, M.P.S., 55 Ash Tree Road, Oadby, Leicester, to Ann Kathleen Yeomans, M.P.S., Darlaston, Staffs.

SEAGO—WAUGH.—At St. Mark's Methodist Church, Yeadon, Leeds, on June 12, John Michael Seago, M.P.S., 47 Dotcliffe Road, Kelbrook, Colne, Lancs, to Nancy Waugh, Sunnysbank Crescent, Yeadon.

DEATHS

BARNES.—On June 2, Mr. Edwin Rickford Barnes, M.F.S., Karenza, Holloway, Littlewick Green, near Maidenhead, Berkshire. Mr. Barnes qualified in 1926.

BELL. — On June 5, Mr. Richard Bell, M.P.S.N.I., 126 Agnes Street, Belfast, Northern Ireland. Mr. Bell served his apprenticeship with the late Mr. A. W. Mann, of Lurgan, and qualified in Northern Ireland in 1931. Prior to his death he had carried on business at 126 Agnes Street for many years.

BERRY. — Recently, Mr. Samuel Berry, M.P.S., 41 Barnet Wood Lane, Ashted, Surrey. Mr. Berry qualified in 1925.

CAMPBELL. — On May 21, Miss Helen Campbell, M.P.S., 82 Monteath Street, Crief, Perthshire. Miss Campbell qualified in 1933.

FAHEY.—On June 7, Mr. Philip H. Fahey, M.P.S.I., 20 Belgrave Road, Rathmines, Dublin. A native of Cappahwhite, co. Tipperary, Mr. Fahey, who was aged seventy-two and unmarried, was educated at Rockwell college and served an apprenticeship in Harvey's pharmacy, Clonmel, qualifying in 1920. He subsequently served as an assistant

in the pharmacy of James Ryan, of Boyle, and later worked in New Ross and then Dublin. After a period in North King Street, he moved to the pharmacy of J. S. Evans and Co., Ltd., St. Stephen's Green, Dublin, where he was later appointed a director which position he continued to hold until his death. He was a life member of Hermitage golf club and also a member of his local Elm Park club.

There was a large attendance of pharmacists at the funeral which took place at St. Michael's cemetery, Tipperary. Mr. T. J. Lynch (secretary); Mr. J. T. Foley (Treasurer) and Mr. Con Collis and Mr. Phil McAuliffe, of the golfing society, travelled from Dublin. A colleague writes:—His loss will be felt particularly among his colleagues of the Irish Chemists' Golfing Society for he took an abiding interest in its welfare. A founder member, he was actively identified with the Society for the entire forty years of its existence and was its energetic secretary for sixteen years until, in recognition of his outstanding work, the society honoured him by appointing him as its first president seven years ago. He continued to hold the office up to his death, bringing much charm, grace and dignity to the position. Outside of his professional work, the demands of the Society occupied all his time and he gladly gave of his services to make it one of the outstanding golfing clubs in the country. Its success will always remain a monument to its well-loved President. Those who saw him compete, and take away a prize at the annual four-day outing at Tramore a week before, little realised that his end was near. A fine type of colleague, he was the life and soul of all pharmacy golfing outings and nothing pleased him more than being out on the links and in the club rooms with his colleagues. He helped organise the various outings of the Society and the only reward he ever sought was to see his friends enjoying themselves. A kindly, charitable type his gentle manner endeared him to all.

NOTTINGHAM. — Recently, Mr. Raymond Nottingham, M.P.S., The Shireling, Spratton, Northampton. Mr. Nottingham, who was managing director, Philadelphus Jeyes & Co., Ltd., of Market Harborough, Kettering and Northampton, qualified in 1928. Mr. Nottingham had been with the company since 1923, when he was an apprentice. He became a director in 1936 and managing director in 1949.

SIMPSON.—On May 21, Mr. William Leigh Simpson, M.P.S., 34 Grove-hall Road, Leeds, 11. Mr. Simpson qualified in 1922.

STEVENSON.—On June 10, Mrs. Elizabeth W. G. Stevenson, wife of Mr. Robert Stevenson, M.P.S., 2 Alexandra Avenue, Prestwick, Ayrshire.

THOMPSON.—On June 1, Mr. John William Thompson, M.P.S., 3 Cedar Crescent, Low Fell, Gateshead, 9, co. Durham. Mr. Thompson qualified in 1933.

TRICKEY.—On May 28, Mr. Leslie Wernthal Trickey, M.P.S., Flat 3, 27 Hyde Park Gardens, London, W.2. Mr. Trickey qualified in 1923.

TRADE NOTES

Discontinued.—Armour Pharmaceutical Co., Ltd., Hampden Park, Eastbourne, Sussex, announce that when present stocks are exhausted, both the 5 gm. and 14.2 gm. packs of Tryptar ointment will be discontinued.

Hot Water Bottles.—P. B. Cow (Li-Lo), Ltd., Trading Estate, Slough, Bucks, invite pharmacists to send for details of their range of Airflow hot water bottles, which are available under an "exclusive branding" scheme.

Generally Available.—Osborne, Garrett, Nagele, Ltd., 51 Frith Street, London, W.1, state that Ogee and Elegan overalls are now being sold to pharmacists. The overalls are manufactured in 30 different shades, patterns and textures in 20 styles for women.

In Polystyrene.—Oppenheimer, Son & Co., Ltd., Sanitas House, Clapham Road, London, S.W.9, are discontinuing the existing pack of 48 Lactagol tablets in favour of a pack of 60 tablets in a decorated and printed polystyrene container.

Changed Poison Status.—H. R. Napp, Ltd., Commerce Way, Lancing, Sussex, point out that their product Sorosil is no longer controlled under Schedule 4, Part B of the Poison Rules, in accordance with the recent exemption introduced for chloral hydrate preparations intended for external use only (see *C. & D.*, June 5, p. 576).

Demanded.—Astra-Hewlett, Ltd., King George's Avenue, Watford, Herts, have made available their Jectofer intramuscular iron preparation in a pack of 100 ampoules. The company state that the decision to introduce the pack was brought about by demands created "by the widespread acceptance of Jectofer by the medical profession."

From Switzerland.—Alfonal, Ltd., Church Road, Worcester Park, Surrey, advise that they have been appointed official distributors of Bio-Strath, the Swiss yeast food tonic. National Press references to the preparation have created an extraordinary demand and the company state "they are doing their utmost to supply all requirements." Display material will be supplied on request.

For Longer Hair Styles.—Bayer Products Co., Winthrop House, Surbiton-on-Thames, Surrey, have adopted a new larger size sachet for their antidandruff preparation Lenium. It replaces the existing 7 gm. sachet and contains 28 per cent. more Lenium. The company are of the opinion that the sachet will be welcomed by women customers who will find that the increased quantity of Lenium is adequate for longer hair styles.

Change of Distributor.—FARILLON, LTD., Chesham House, Chesham Close, Romford, Essex, a subsidiary of Macarthy's Pharmaceuticals, Ltd., have taken over the distribution of the products of Selparm, Ltd. The range comprises Anaprel tablets 50, 100; Ponderax tablets 50, 100, 1,000; Vastarel tablets 50, 100, 1,000; Locabital pressurised pack and refill and nasal

spray.—As from June 21 BENGUE & Co., LTD., Mount Pleasant, Alperton, Middlesex, will be the distributors of Heudebert's slimming foods including starch reduced slices, Heudebert's Symbred, Biscottes and wholemeal rusks.

Prize-winners.—Optrex, Ltd., Wadsworth Road, Perivale, Greenford, Middlesex, have announced the names of the first winners in the Mr. Optrex display scheme, they include:—Downer & Walker, West Street, Buckingham. G. W. Evans, 97 Uxbridge Road, W.12. Gould & Co., 20 N. Audley Street, Grosvenor Square, W.1. G. P. Gross, M.P.S., 231 Broadway, Cricklewood, London, N.W.2. John Harley, Ltd., 25 Queensway, London, W.2. T. Henshall, M.P.S., 39 Warwick Street, Leamington Spa. W. G. Manfield, M.P.S., 64 High

Street, Acton, W.3. P. Riman, M.P.S., 150 Emscote Road, Warwick, Skeltons (The Chemist), Ltd., Bedworth, Warwickshire. J. S. Tomlinson, M.P.S., 97 Allesley Old Road, Coventry. Walton Pharmacy, Wendover Road, Aylesbury. Mr. Optrex is still touring the country and further lists of winners will be announced.

Bonus Offers

MAY & BAKER, LTD., Dagenham, Essex. Brolene Eye Drops and Brolene Eye Ointment. 10 invoiced as 9.

HAETAM, LTD., 63 Corporation Street, Manchester, 4. Fabulo novelty hair rollers. 12 dozen packets supplied through the wholesale trade or direct from manufacturers, reduction of 2s. 8d. per dozen packets plus 25 per cent.

INFORMATION FOR MANUFACTURERS

Flexible Heating Elements.—A series of thin, flexible electrical heating materials based on conducting rubbers has been developed by the Nobel division of Imperial Chemical Industries, Ltd., Imperial Chemical House, Millbank, London, S.W.1. Sheets of the conducting polymer are supported on a fabric base. The elements are capable of continuous operation at temperatures up to 150° C. giving even heating over their entire surfaces. Among applications under development are the electrical radiant heating of buildings and a low-voltage bed blanket having high intrinsic safety.

Trade Directory of Ethiopia.—"The Trade Directory of the Empire of Ethiopia" has been published for 1965 by the Diplomatic Press & Publishing Co., Ltd., 13 Cotswold Gardens, London, N.W.2, price 15s. In common with other directories in the series the directory includes a classified trade index, foreign trade statistics and information on banking and transport facilities.

Help in Recruiting Salesmen.—Tack Management Consultants, Ltd., Longmoore Street, London, S.W.1, offer the help of the company's consultants in investigating and advising on marketing policies and problems, on training salesmen and on selecting men for promotion. They undertake preliminary screening of applicants so that the employing company's executives need see only the most suitable applicants.

Uses for Plastics Film.—The Commercial Plastics group of companies has staged an exhibition illustrating the many uses for its products. Participating group members are Commercial Plastics, Ltd. (represented by Fablon, Greenwich and Industrial divisions, Iridon, Ltd.); Industrial Polymers, Ltd.; Anglo-American Plastics, Ltd.; and King Packaging, Ltd. Products shown range from film for baby pants to packaging and hospital applications. The exhibition is open to trade and professional visitors until June 25 (Saturdays and Sundays excepted), 10 a.m. to 7 p.m.

Parcels Service To Europe.—A comprehensive parcels service from Great

Britain to many of the principal cities in Europe and all destinations in the Netherlands has been introduced by British Road Services Parcels, Ltd. The new service, which also provides for parcels coming into Great Britain, is operated in conjunction with Baxter, Hoare & Co., Ltd., Borough High Street, London, S.E.1, who will arrange all export formalities, and N.V. Van Gend & Loos, Rotterdam, Holland, who will deliver or arrange onward dispatch to Continental destinations. Any of the 100 B.R.S. Parcels, Ltd., branches throughout the country will arrange collection or acceptance of goods and provide full details.

MAKERS' ACTIVITIES

Long Service Awards.—Twenty-six employees of Ilford, Ltd., were each presented with a gold watch by Mr. R. Withers (chairman of the company) at Brentwood on May 27, after having completed thirty years' service with the company.

Sailing Trophy Award.—Giving further particulars of the sailing trophy award to be offered each year by Optrex, Ltd. (see *C. & D.*, May 29, p. 550), the managing director (Mr. H. Seward) said that the award would be a pair of Carl Zeiss binoculars for the skipper and a cheque for the winning crew. The award was the second in a series of sporting trophies which the company had inaugurated and others would be made over the coming years.

Agents Shown Factory.—Proprietary Perfumes, Ltd., recently arranged for many of the company's agents to meet for a week at Ashford, Kent, to discuss plans for expansion and see the company's £1 million perfumery centre. The agents arrived from Grasse, France, the centre of the French perfumery industry, where they had been introduced to the work of the associate company, Bertrand Frères. Countries represented at the Ashford conference included Finland, Norway, Sweden, Japan, France, Portugal, Greece, Austria, Belgium, Holland, Switzerland and Malaysia. In 1964 the company's exports increased by over 40 per cent. to more than £3 millions.

NEW PRODUCTS AND PACKS

MEDICAL SPECIALITIES

Specialities for the Eyes.—Contactasol, Ltd., 70 New Bond Street, London, W.1, are the manufacturers of a range of specialities, principally for users of contact lenses. The products include Eye-clear, an ophthalmic decongestant and lubricant in container of 20 mls. Contactasol contact-lens wetting solution, Contactasoak contact-lens soaking solution and Eyesoothe eye lotion in container of 100 mls. The lotion is used in an eyebath.

Anti-diarrhoeal Preparation.—Carlton Laboratories (Southern), Ltd., 2 Norfolk Square, Brighton, have received the approval of the Committee on the Safety of Drugs for their preparation Carlton suspension N.K. It is a pleasant tasting preparation, each fluid oz. of which contains neomycin sulphate grs. 5, kaolin B.P. grs. 82 in a suspension of methyl cellulose. It is presented for the treatment of bacterial diarrhoeas and enteric infections in which the causative organism is sensitive to neomycin. Packs are bottles of 4 and 16 fl. oz.

Sustained Release Form.—Parke, Davis & Co., Staines Road, Hounslow, Middlesex, are offering a new speciality Portyn Templets, a sustained release form of the anticholinergic agent, Portyn. Each Templet contains 35 mgm. benzilium bromide; 5 mgm. for immediate release and 30 mgm. for gradual release. Portyn Templets are indicated for the inhibition of gastric secretion, gastro-intestinal spasm and hypermotility in patients with peptic ulcer and certain functional gastro-intestinal diseases. Portyn Templets may also be useful in other conditions which have proved amenable to anticholinergic therapy. One Templet twice daily at 12-hourly intervals usually provides a useful degree of inhibition of gastric secretion and gastro-intestinal hypermotility, it is claimed.

For Carbohydrate Intolerance.—Paines & Byrne, Ltd., Pabym Laboratories, Perivale, Greenford, Middx, announce that, as from July 1, their preparation Ketovite (Supplement) syrup is being replaced by a new sugar-free product to be known as Ketovite (Supplement) liquid. Ketovite preparations, tablets and syrup, were originally devised to provide complete vitamin supplements for phenylketonuric infants on restricted diets. Ketovite (Supplement) liquid and Ketovite tablets are now prepared free from lactose, sucrose, starch and sodium and may therefore be used in the dietary treatment of galactosaemia, fructosaemia and other conditions of carbohydrate intolerance involving the use of synthetic milk foods. Packings and prices remain unchanged and a new information card relating to Ketovite preparations is available from the company on request.

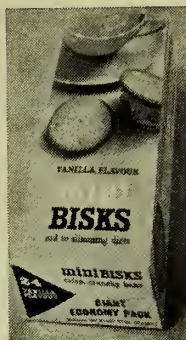
PRODUCTS FOR BABIES

Skin Emollient.—Associated Products, Ltd., Eldon Street House, London, E.C.2, have launched Baby Quick

cream pads containing a skin emollient and hexachlorophene. Specially prepared to avoid any stinging or drying the pads soothe and protect. The pads are lightly perfumed and may be used on baby's face to soothe any soreness from wind or sun. The antiseptic and the emollient help to obviate nappy rash.

FOODS

Economy Pack.—British Chemotheutic Products, Ltd., Grant Street, Bradford, have introduced a giant economy pack for their MiniBisks. The new pack contains 24 MiniBisks, in either cheese 'n celery or vanilla flavour. In view of the unusual demand for Bisk calorie counters, further supplies have been printed and are now available on request. Designed to help those who wish to control their daily intake of calories "without straining their will-power," the counters indicate the calorie value of most foods in everyday diet.



COSMETICS AND TOILETRIES

Addition to Range.—Yardley of London, Ltd., 33 Old Bond Street, London, W.1, have added a new fragrance, Red Roses, to their floral cologne range. Claimed as the nearest approach to the true scent of red roses, the cologne completes a trio with April Violets and Freesia. The pack is a flask-shaped bottle.

Additions to Range.—Elizabeth Arden, 25 Old Bond Street, London, W.1, are now issuing a hair spray and a roll-on deodorant perfumed with *Mémoire Chérie*. The spray is a light, non-sticky, non-lacquer preparation and together with the "deliciously scented deodorant and anti-perspirant" will complete a range of good grooming preparations in a matching fragrance.

Shades for '65.—Two ranges of lipsticks offered by Lancome (England), Ltd., 14 Grosvenor Street, London, W.1, for the 1965 season enable the user to be (the manufacturers state) either "provocatively feminine" or "refreshingly natural." The series are *Moderato* 1, 2 and *nacre* (the first an apricot, the second a wild rose and the third "darkly iridescent"), and *Profond* 1 and 2 (the first "red with the softness of silk" and the second "profoundly red"). The lipsticks, non-irritant and being delicately perfumed with extract of roses, are claimed both to care for and beautify the delicate skin of the lips, preventing cracking and dehydration.

Multi-Purpose.—Bien-Etre splash cologne is said to be an entirely new conception for the use of cologne as a family product. Offered by Abbey Parfumerie Co., Ltd., Sophia House,

76 City Road, London, E.C.1, Bien-Etre splash cologne is not a perfume nor is it to be confused with other more expensive natural handkerchief cologne. It may be used lavishly as an after-bath refreshment or after-shave lotion or as an alternative to talcum powder. Offered in four sizes, $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$ and 1 litre; London T.V. area only.

Leather and Wood.—The main characteristics of Wild Silk perfume, introduced by Goya, Ltd., 161 New Bond Street, London, W.1, are "leather and wood fragrances built on the sophisticated fern base." There is also "a lot of ambergris to achieve a strong animal character and to balance the heaviness of the base floral top notes with neroli, bergamot and jasmin have been added." The perfume is packed in an "intriguingly triangular shape" that makes the perfume look much more precious than its price." The triangular shape has been adopted throughout the whole range of perfume and cologne bottles and the packaging theme is of "pale blue real silk threads photographed against a deep sapphire blue background with an unexpected flash of colour appearing here and there from the orange silk insets to the top of the perfume and cologne cartons." The range includes soap, bath salts, talcum, hand cream, shampoo and hairspray and is to be on retail sale from July 12.

New Fragrance for Range.—In a bid to increase their established market in men's toiletry products, Reckitt & Sons, Ltd., Hull, announce the introduction of a new range of Corvette products. The new packs have a striking golden sun-wheel device enabling



immediate recognition together with a new variation of the familiar Corvette ship symbol. A move towards greater sophistication is reflected in the new fragrance used throughout the range. It is described as "fresh and masculine with a tangy, citrous note." Products in the range include:—After shave, brushless shave, lather shave, haircream, pre-electric lotion, shaving bowl and refill, shaving stick and refill and talc. New prices also obtain.

Correspondence

Letters when received must bear the name and address of the sender, not necessarily for publication. The Editor does not hold himself responsible for the views expressed.

Election

SIR,—I should be pleased if you would allow me to convey my thanks to the 2,800 members who voted for me in the recent Council election, and who, in doing so, showed their support for more resolute action to limit the continual commercial exploitation of the profession of pharmacy.

C. H. PRESTON ROBINSON,
Sutton-in-Ashfield,
Notts

July 25

SIR,—The Blackpool Branch of the Pharmaceutical Society have arranged to take members to the special general meeting by coach. The coach will leave Enterprise Motors garage, Red Bank Road, Blackpool, at 6 a.m. and will pick up at Devonshire Square and Oxford Square, Blackpool. Limited car parking space will be available at Red Bank Road. The cost to each member will be £1 10s. exclusive of refreshments. Will members wishing to travel on the coach apply by post immediately to me enclosing remittance for £1 10s., cheque or postal order to be made payable to Blackpool Branch Pharmaceutical Society.

ALBERT S. SMITH,
8 Blackpool Road,
Great Carleton,
Poulton-le-Fylde,
Blackpool

Nuisance Value?

SIR,—Your correspondent Kohima (see *C. & D.*, June 12, p. 608) states Boots' introduction of Totomycin brand of tetracycline has neither ethical rhyme nor economic reason. I am not a betting man but following the Press reports that D.D.S.A. will not be invited to tender for tetracycline in future (despite its price of £4 per 1,000 and admitted B.P. quality), I would be prepared to wager that Boots will get that contract with their new line. It certainly is roses, roses all the way for that firm; they are making a concentrated effort to attract newly qualified men by posting large bills at each college of pharmacy offering up to £3,000 p.a. for managers. I know one manager whose shop takes over £3,000 every Saturday and he has not yet reached that figure! Perhaps one per cent. of their managers do, but they jolly well have to earn it, and pharmacy plays very little part in their occupation.

"ONE WHO GOT AWAY"

Rural Dispensing

SIR,—“There is no justification,” said Mr. Youings, “for any doctor to dispense when there is a pharmacy nearby” (see *C. & D.*, May 8, p. 481). Here is a little problem for the pundits. In a village which I know well the doctor's surgery and the pharmacy are about a hundred yards apart. The nearest pharmacy in one direction is about three miles away; but if one travels in the

opposite direction, through the area from which the doctor draws most of his patients, one must go ten miles to find another pharmacy. The village pharmacy stays open until 6.30 p.m. on five nights a week. After that, the pharmacist, who does not live in the village, goes home. There is no pharmacist available after 6.30 p.m. any day, nor on Sunday, nor on the afternoon of early-closing day. The doctor holds consultations mornings and evenings. He dispenses for as many of his patients as possible. He is careful to observe the “one-mile limit,” but even so he can, and does, dispense for most of the people on his list. What is to happen if his right to dispense is abolished or curtailed? Morning surgery will present no problem. The patient will merely have to walk the 100 yards and get his medicine before going home. But what of the evening surgery? The chemist is busy all day and is usually tired and glad to be able to shut up and go home at 6.30. But the doctor frequently does not get in from his “rounds” until after 6.30, and often does not finish seeing waiting patients until 8.30, or later. To the villagers (i.e., those within the “one-mile limit”) this presents no problem. If they are too late to “catch” the chemist they can put their prescriptions in the letter-box and call to collect their medicines the next day (as, indeed, they already do). People who live

several miles out can also do this, but to collect them the next day will entail a round journey of perhaps eight or ten miles, not all of it over metalled roads. Clearly, such patients are going to be put to great inconvenience if they cannot collect their medicines the same night. The alternative, if the doctor may not dispense, would be for the chemist to stay open later. This is not going to be popular with the chemist (or his staff!), as it will frequently mean that they are still at work after 8.30 p.m. If he leaves the village for work with more reasonable hours, it will be impossible to replace him. Nobody is likely to want a job with irregular (and unpredictable) hours like that every week. The idea that the chemist live on the premises can be ruled out at once. The building is not suitable. The suggestion that the doctor start his surgery earlier would not appeal to the doctor, since his afternoon “round” is not always of his patients—often it is a “round” of golf! Since the doctor cannot be compelled or persuaded to observe more reasonable hours, to forbid him to dispense would mean hardship either for the chemist or for the patients, and probably for both. There, then, is the problem. I venture to suggest that it is not unique. It will be interesting to see Mr. Youings's (or Xrayser's) ideas of solving it.

URBAN SEMPER

BRANCH EVENTS

READING

Crime Detection

THE history and growth of the use of photography by the police force and its application today in the solving of crime was described to a meeting of the Reading Branch of the Pharmaceutical Society recently by MR. LAW (formerly a detective inspector in charge of the photographic section at Scotland Yard. Particular interest was taken in his remarks on the use of ultra-violet light and infra-red rays. The marking of clothing by laundries with a dilute solution of quinine sulphate, which fluoresces under ultra-violet light enabling ownership of the article to be readily established, was one of the applications described. Mr. Law concluded his talk by showing slides illustrating the use of various photographic techniques, also including some of the earliest photographic records in existence.

LEEDS

Advice on Driving

MEMBERS of Leeds' Branch of the Pharmaceutical Society, who met at Wakefield recently as guests of Wakefield's pharmacists, heard an address by Sergeant Greaves of the West Riding Constabulary on “Safe Driving in Relation to Road Accidents.” Sergeant Greaves, a driving instructor, said that three important demands made on a driver were observation, concentration

and instant reaction. Observation demanded wide-angle vision to avoid being taken by surprise. He had found that in the early stages student drivers could concentrate for only half an hour. That period had gradually to be extended. He taught that movement of the foot should be simultaneous with thought. Correct reaction would produce the smoothness of action so vital in gear-changing, braking, steering and starting. The old system of trial and error in teaching had been replaced in the West Riding by a carefully worked out method which had been used successfully for the past twenty years. During instruction a student was required to give a running commentary on the experiences he encountered and his assessment of the road ahead. That presented dramatically the three important demands. On a right-hand turn the student was taught to select the correct speed and gear, the correct placing of the car prior to cornering and the condition of the road surface. After reducing speed to the optimum degree the accelerator was used sympathetically to produce a gentle propulsion. The student was taught when taking a right-hand bend not to steer towards the centre of the road, but to the near side to obtain a greater angle of vision. Skidding, said Sergeant Greaves, could often be avoided by observing the nature of the road surface and slowing down. A film made at the Road Research Laboratories, Crowthorne, was shown.



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A New Climate

THE news that the Ministry of Health has received acceptable offers from patentees or licensees in the United Kingdom for the supply of three drugs to hospitals and the Armed Services (see p. 621), will be welcomed by all who doubted the wisdom of the use by Ministers of Section 46 of the Patents Act. The contracts placed by the Minister of Health under that section for the supply of tetracycline, oxytetracycline, chlortetracycline, chloramphenicol and chlorothiazide, were due to have expired on April 30 last, but were extended to September 30. However, before taking action regarding further tenders, the Minister invited patentees and licensees to quote for the supply of four of those drugs (the patent of chlortetracycline having expired in February), together with three other widely used patented drugs, namely, hydrochlorothiazide, chlorpromazine and chlordiazepoxide. Acceptable offers were received for the supply of chloramphenicol, chlorpromazine and chlordiazepoxide; prices for the two tetracyclines are to be negotiated concurrently with those to be applied in the pharmaceutical service, while for the two thiazide drugs, tenders have now been invited.

The Minister's initiative in this matter is a real step forward in relations between the Ministry and the pharmaceutical industry and it is to be hoped that the new climate will continue. In reaching the conclusion that the offers received were "acceptable," the Minister would probably have had in mind the royalties to be paid to patentees of drugs bought from unlicensed sources (still to be decided), the adverse effect of imported drugs on the country's trade balance, and the impediment to research initiative that disregard of patents entailed. He may also have considered the advantages of working with British-based manufacturers in an atmosphere of goodwill. On the other side, those pharmaceutical companies whose offers have been found acceptable, and those with whom negotiations are continuing, have apparently been prepared to go much further than hitherto in meeting the demands of their major British customer. It now remains to hope that some formula will be found whereby agreement can be reached with patentees or licensees of the two thiazide drugs.

We may be about to witness the close of an unpleasant chapter that both sides would be pleased to forget. If so, and an atmosphere of mutual trust becomes established between the Ministry and the industry (and the inquiry now opening could do much good in that direction), then all, including the most important person in the National Health Service—the patient—will benefit.

Planning Appeals Speeded Up

MANY retailers have been put off from appealing to the Minister of Housing and Local Government when a planning application is turned down by the local council, by the long delays and red tape that have often taken place. The position is now changing. Greater use is now made of written representations instead of local inquiries. In 1964 over a third of the appeals decided were dealt with in that way, saving time and expense both to the local rates and to the shopkeepers. Even shorter delays may now be the order of the day. The Minister has proposed a "time table." If he suggests that written representations should be used instead of a local inquiry he will wish to know within fourteen days whether the parties agree. If they do, he will notify them accordingly and expect them to submit statements so soon as possible (not later than one month after being notified that written representations are to be made). Copies of the statements will be exchanged so soon as they are received, further comments will be asked for within a fortnight. The Minister will normally expect to be able to decide the appeal after receiving such further comments. He will notify the parties of the date of an accompanied site visit while the written exchanges are going on. The Minister hopes that by adhering to that time table local authorities will be able to offer an earlier date for the hearing of appeals still to come to inquiry, since the delays mostly occur over the initial statement of case or through the prolonging of exchanges between the parties. It should be possible, the Minister considers, for local authorities to submit the statement of their case within twenty-eight days of being notified that the appeal is to be decided by written representations. We hope the Minister's efforts prove successful, for delays due to planning appeals are frustrating, often merely retarding matters without increasing commercial efficiency.

Car Parking Standards

THE Minister of Housing and Local Government has promised to give guidance to local planning authorities on how to make and put into effect comprehensive plans for controlling and providing parking space in town centres. In the meantime, local councils are laying down standards for the provision of parking in new buildings. Gloucestershire County Council's planning committee proposes that for retail shops in towns there should be one space per 1,300 sq. ft. gross within curtilage, plus one additional space per 200 sq. ft. gross, plus adequate loading/off-loading and turning facilities within curtilage. Village shops should have one space per 500 sq. ft. or one space per 5 ft. of shop frontage (whichever is the less). The committee is suggesting that warehouses and other wholesale establishments should have one space per 2,000 sq. ft. gross floor space, office accommodation to be provided on the office scale of one space per 300 sq. ft. of gross floor area, plus the facilities mentioned above. Standards for industrial buildings amount to one space per 500 sq. ft. gross of industrial floor space, with car space for office accommodation at office scale, plus the loading, etc., facilities as above. Hospitals should have one space per three beds plus one additional car space per 500 sq. ft. of "staff only" floor space, plus one space per ten resident nurses.

Similar standards are likely to be applied elsewhere, and pharmacists contemplating occupying new premises should bear in mind the possibility of being obliged to meet such requirements.

Onward from Galen

★ "ADDING" REWARDS FROM RESEARCH ★

How rewards from research are sometimes reaped in unexpected fields might well have been the theme of an address given to a meeting of businessmen in London, recently, by Miss M. Lyon (senior research chemist at the National Cash Register organisation's research and development laboratory at Dayton, Ohio, U.S.A.). Outlining a number of research projects her company had undertaken, Miss Lyon mentioned a programme undertaken many years ago designed to eliminate the need for ink-ribbons in business machines. From it had emerged the company's NCR paper, which enabled copies to be made without the use of car-

bon inserts. The basis of NCR paper was a process that enabled minute drops of colourless ink to be isolated in capsules only 1-2 microns in diameter. The capsules were coated on the back of a sheet of paper. When ruptured by a pencil or typebar they released the colourless ink on to the clay surface of a receiving sheet of paper, thus forming an indelible impression. Micro-encapsulation had now spread into fields far removed from printing and copying, providing a novel packaging technique. Diversification had led to the micro-encapsulation technique being used in photography, food, medicines and various government applications. For the pharmaceutical industry, for example, the company had produced microscopic capsules that would not break in the mouth but dissolved in the digestive juices. Food flavours were now being encapsulated, to be held securely until released by heat as in cake ingredients, by pressure as in tooth-paste, or by water as in instant beverages. Cash-register tickets could be coated with encapsulated perfume that was released on pressure from the register's print mechanism—"an ideal way of introducing a new perfume to the customers."

"OPEN SHOP"

An unscripted commentary on the special problems of the pharmacist in general practice

E. C. TENNER

WHAT a man (or woman)! His professional society suggests that he should personally supervise the sale of all medicinal items and at all times be instantly available to advise on those matters; his national union requests that he devote his energies to the sale of sponsored products; his government demands that he shall personally supervise the dispensing of all prescriptions and, of course, undertake the unpaid collection of various taxes. There is a grave possibility that shortly that same government will expect him to conduct a price war in competition with those who have no professional or ethical obligations. In between all that he has to cope with the clerical work which is inseparable from the conduct of any business, large or small. It is just too much to expect of any individual. No wonder that there is a gradual closure of shops (I note that approximately 150 disappeared last year and that newly graduated pharmacists seem wary about retail pharmacy). No wonder either that there is an increasingly insistent demand for limitation of pharmacies so that amalgamations may lead to more two- or three-pharmacist shops, with a possible spreading of the load. Whatever may be the rights or wrongs of the matter, we are just not going to get the younger generation to slave, I repeat slave, for the fifty or sixty hours a week to which we older ones are conditioned. We had therefore better lay our plans for the future with this factor quite clear in our minds. The present move for a five-day week certainly points the shape of that future and, so far as I can observe, in most small businesses the result is that whilst the assistants work less, the owner works just that much harder. What a wonderful state of affairs!

Training for an Assistant

The thought of assistants brings one to consider the present move towards an official scheme of training. Personally, I have never really believed in the need for this. I consider that most pharmacists are quite able to provide the training necessary for their own individual requirements. Nevertheless it would appear that an official scheme is going to be forced upon us, and perhaps it is as well that the National Pharmaceutical Union rather than the Pharmaceutical Society will be taking the major share of responsibility for it. One thing however must be foremost in the minds of all concerned in this matter: There must be no question of attempting to produce anything that might

develop into a pseudo-pharmacist. I would suggest that any course of instruction should be directed towards producing quality counter assistants, the emphasis being towards matters such as cosmetics, photography, stock control, display, simple bookkeeping, business correspondence, etc. A girl trained in such matters can remove a considerable load from the shoulders of her employer. For her also to be trained to be able to spot the customer who would benefit from the personal attention of the pharmacist would be an excellent thing, although perhaps this is asking for the impossible. One thing, however, I must insist on and that is that there must be no mention of dispensing in the course. Nothing must be done which might in any way suggest that anyone other than a pharmacist is capable of dealing with even the simplest prescription. As a profession we have significantly few privileges. To endanger the main one would be the height of folly.

Votes for All

I would suggest that the happenings at the Society's annual meeting were no more than could have been expected, and it would seem to me that there is every chance of a repeat performance at the special meeting now called. Since this is a matter of major importance, and since it is also impossible for all those who are interested to be present at the meeting, there is surely a strong case for either proxy or postal voting. Another item in the report of the meeting that interested me was the mention made by the president of the establishment of the Agricultural and Veterinary Pharmacy Group. There may not be many pharmacists interested in that branch of our work, but from my own contact with it, it can be both interesting and rewarding. Unfortunately, perhaps by default on our part, much of the business seems to have drifted into the hands of unqualified traders. Perhaps the new group may be able to devise ways of reversing that trend. One thing would appear to me to be essential and that is to provide a means for the pharmacist to be absent from his shop in order that he may visit the farms and auction marts in his area. It should be possible for rural and suburban pharmacists to register their premises for the dispensing and sale of medicines only during certain specified hours. I am sure that such a system would be of great help to those interested in developing the hitherto neglected branch of their business dealing with agricultural products.

FIGURES IN THE PHARMACEUTICAL WORLD

CONSIDERING that he took up pharmacy "as an escape route" (the words are his own), one cannot but wonder whether Mr. J. P. Kerr, M.P.S., Newcastle-on-Tyne, has found subsequently that it came up to his expectations in that respect. His energy in recent years in trying to transform its status into something at an altogether higher level, and professionally much more rewarding to its practitioners, his zeal in bringing others to his way of thinking, hardly suggest escapism.

Mr. Kerr came into prominence as one of the "rebels" of the North-east who, with others in Coventry, Southampton and elsewhere demanded the now historic Special General Meeting of the Pharmaceutical Society in Birmingham in 1961. That meeting, it will be recalled, brought to a head a movement that seemed to spring up spontaneously and suddenly in many parts of the country at once, and since which the Society's Council has been active in many ways in which previously it appeared to take little interest. Mr. Kerr was not present at that meeting, owing to the marriage of his daughter that week-end. He says that he tried to postpone the wedding, but on this occasion he was over-ruled. So far as Newcastle and District was concerned Mr. Kerr had become known some years earlier as a rebellious spirit intent on bringing about changes, and his colleagues—some, perhaps, to quieten him, others to align themselves in support of his ideas—had made him a committee member and officer of the Branch.

To the service of his fellow-members Mr. Kerr brought a knowledge of pharmacy gained in exceptionally varied capacities both north and south of the Border. Born in Paisley, he received most of his education in Dundee, to which his parents had removed, and in which, in 1932, he embarked on a four-year apprenticeship at the pharmacy of James Hardie & Son, 19 Union Street. He studied pharmacy at the Dundee School of Pharmacy, under Dr. McCall, who was then principal, and Dr. McMorran (both in their turn secretaries of the Society's Scottish Department) and qualified in 1938. As a student he gave, perhaps, a slight hint of eventual activities in pharmaceutical politics by being elected chairman of the students' representative council at the college. Possessed of the magic letters M.P.S. he secured an immediate managership in a pharmacy at Kirkintilloch, Dunbartonshire, a township boasting four pharmacies—all in Cowgate—and remarkable (to the English at all events) for being then and now prohibitionist under the system of local option that applies in Scotland. Not for that reason, but to widen his experience, he came south to London in 1941, and purchased a business in Hornsey High Street as a chemist and optician. Wishing to gain experience in other sections of pharmacy, he disposed of the business in 1946 and became a representative with May & Baker, Ltd., in Newcastle-on-Tyne, and later manager of the whole-



MR. J. P. KERR

sale business of Phillips Spencer Dakers. He returned to retail pharmacy by purchasing the business of R. R. Gibson, 149 Shields Road, Newcastle.

He made a clean sweep of many of its stocks, and shaped it into a business more in accordance with his own ideas. The changes and applied acumen brought their rewards, in such measure that when, in about eight years, he acquired a second pharmacy he ran it as a dispensing-only pharmacy. Partly, no doubt, by its strategic location in an area in which are many surgeries, it has given proof that, given suitable conditions, such a business can be profitably carried on, especially if made so attractive and professional looking as a CHEMIST AND DRUGGIST illustration in 1960 (*C. & D.*, September 3, 1960, p. 280) showed it to be. Later he opened another business at 90 West Road.

Once established in the North-eastern capital, and with less likelihood of changing his occupation or place of work, he had more opportunity of becoming active within his local branch

of the Society. From then on he has come more and more into the centre of the picture, securing election to the Council in 1963 and now serving on its Ethical, Education, Practice and Law Committees. He is chairman of the hospital subcommittee of the Practice Committee and thinks that the appointment of a general practitioner of pharmacy as chairman of that committee is symbolic of the new unity within pharmacy, and a practical expression of the fact that all branches of pharmacy are interdependent.

Though he is vigorous in promoting his campaign for better conditions and greater professionalism in pharmacy Mr. Kerr is personally relaxed, charming and courteous, achieving his aims by the methods of the diplomat rather than the tub-thumper. His record seems to show that his views have an uncanny habit of prevailing in due course, and he is young enough to go on promoting them for many years if, as seems probable, he gains re-election after each three-year term.

Pharmaceutical Society of Ireland

MONTHLY MEETING OF COUNCIL

THE Council of the Pharmaceutical Society of Ireland is to issue a general statement to members on matters relating to professional conduct. That was agreed at the monthly meeting in Dublin on June 8 after the REGISTRAR had referred to a recommendation that the Council should issue a statement dealing with the labelling of poisons, the sale of veterinary medicines and the new regulations regarding control of brucellosis recently introduced by the Minister for Agriculture. The statement will deal with the three items in numerical order for easy reference purposes.

The regulations referred to came into operation on May 17, 1965. The S.I., No. 111, of 1965, is entitled "Diseases of Animals (Control of Certain Vaccination and Extension to Brucellosis) Order 1965," and (1) provides that vaccination of cattle against brucellosis, with anti-abortion vaccine, may be carried out only by a veterinary surgeon or veterinary inspector; (2) restricts such vaccination, except with the permission of the Minister, to heifer calves aged not less than three months and not more than six months; (3) provides that each vaccinated animal (other than a pedigree animal) shall be marked on the right ear by means of a tattoo; (4) requires the surrender to the veterinary surgeon or veterinary inspector carrying out the vaccination of any identity card issued by the Minister. The S.I., No. 112, of 1965, is entitled "The Animal Remedies (Control of Certain Anti-Abortion Vaccines) Regulations, 1965." The Regulations apply to any anti-abortion vaccine intended for use in the vaccination of a bovine animal against brucellosis. They prohibit the sale of any anti-abortion vaccine for use in the vaccination of cattle against brucellosis except under licence by the Minister.

Insurance Cover

MR. D. J. KENNELLY said the statement that would be issued relating to the inherent dangers of supplying medical preparations was in the interests of the pharmacists themselves and was primarily intended to prevent members from leaving themselves open to legal action. That was a serious matter and deserved the closest attention of all members. The President (MR. J. P. O'DONNELL) told MR. M. F. WALSH, who asked if the Council would consider advising pharmacists on the necessity of taking out alternative insurance cover to protect them against the hazards in the sale of such preparations, that that was a matter of personal arrangement between the individual pharmacist and his insurance agent. In a further reply to Mr. Walsh, the Registrar (MR. J. G. COLEMAN) said it was customary for pharmacists to secure professional indemnity insurance to protect them against possible mistakes in prescriptions. That was not a function of the Society. He also told Mr. Walsh that it was intended to circularise licentiates.

The Council unanimously decided on the motion of MR. KENNELLY, seconded by MR. CASHMAN, that equipment for the rapid identification of tablets as recently demonstrated in the College of Pharmacy (see p. 624) by Mr. C. McArdle, Birmingham, should be acquired. Members agreed that no time should be lost in obtaining the equipment which, it was hoped, would be the first step in the setting up of a poisons' control centre in the Republic. It was also agreed to send a member of the College staff over to Birmingham to familiarise himself with the operation of the equipment and to arrange for a full-time service to be available for the benefit of hospitals. MR. KENNELLY said they were all pleased that Mr. McArdle had felt that the Society should be the proper authority to operate such a service. He had promised every assistance to the Society in the establishment of the service and had offered to give copies of his entire file of cards for tablet identification. That gesture was much

appreciated by the Council. It was important that the Council should make an immediate decision to purchase the equipment. The Society was the only body, other than the Pharmaceutical Society of Great Britain that had been offered the equipment by Mr. McArdle, he added. Members paid tribute to the most interesting lecture and demonstration given by Mr. McArdle with the assistance of Miss Eileen Skew.

THE REGISTRAR reported that of the twenty-seven candidates for the Pharmaceutical Assistants' examination in May eleven had passed.

Deputation on Health Services

A letter was received from the Minister for Health stating that he would receive a deputation from the Council on June 18 to discuss the proposed new Health Services. It was agreed that the deputation would meet on the eve of the talks to review the situation before meeting the Minister.

THE REGISTRAR reported that a number of applications had been received from students seeking recognition of apprenticeship periods served prior to the commencement of the degree course in lieu of the year's practical training following the course. It was decided that such apprenticeships served could not be accepted because the idea of practical training was to enable graduates to put into practice what they had been taught in the College. Arising from the Law Committee report prosecutions were recommended in the case of three offences reported by the Inspector.

THE REGISTRAR reported the deaths of James W. O'Gorman, M.P.S.I., and Philip Fahey, M.P.S.I. THE PRESIDENT said that it was with deep regret that he had learned of the deaths of those two very respected members. Mr. Fahey had been president of the Irish Chemists' Golfing Society (see p. 627). MR. T. R. MILLER said that both pharmacists had been "neighbours" of his and it was a tribute to their pharmaceutical outlook that they had co-operated to the fullest extent in the carrying out of their professional duties. He was very sorry that the Society had lost two such valuable members.

THE REGISTRAR reported that the *gardai* authorities had intimated that they were conducting investigations into cases of forged prescriptions reported by the Council.

The following were nominated for Membership: Miss Mella Cusack, L.P.S.I., Green Ville, Carrigallen, co. Leitrim; Luke Colleran, L.P.S.I., Charlestown, co. Mayo, and John J. Joyce, L.P.S.I., 40 Main Street, Mallow, co. Cork.

Dr. Louis Chung Yuen Cheung, of Hong Kong, who submitted an L.A.H. Certificate, was approved for registration as a Pharmaceutical Chemist.

Mrs. Una Ryan (née Reilly), L.P.S.I., who had submitted her marriage certificate was granted change of name in the Register.

Margaret Mary Buckley, Laganlee, Carrigrohane, Cork, was granted registration in the Pharmaceutical Assistants' Preliminary Register.

Changes of address were noted in the case of Mrs. Una Ryan, L.P.S.I., to 107 St. Lawrence Road, Clontarf, Dublin, 3, and of Maurice Dillon to Charleville, co. Cork.

Members present were:—Messrs. M. L. Cashman, T. R. Miller, Dr. W. E. Boles, H. P. Corrigan, M. Costello, C. J. Cremen, Miss Laura Cuniffe, J. Gleeson, D. J. Kennelly, F. Loughman, V. G. McElwee, J. B. Murphy, G. C. O'Neill, R. J. Power, R. J. Semple, M. F. Walsh.

A number of grants were passed for payment at a meeting of the Benevolent Fund which followed.

MAGIC WORD: Despite sign-posting of the way with "PHARMACY" notices, many a patient used to get lost seeking the "DISPENSARY," until the word "PRESCRIPTIONS" was added to the notices.—*Journal of Hospital Pharmacy*.

GUIDE TO NEW MEDICAMENTS

Information about proprietary products supplied principally on prescription. Reprints on perforated gummed paper for affixing to index cards are obtainable from the Editor. Notes on the products are given on p. 643.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 19, 1965

ACTRAPID injection

MANUFACTURER: Novo Industri A/S, Copenhagen, Denmark.
DISTRIBUTOR: Evans Medical, Ltd., Speke, Liverpool, 24.

DESCRIPTION: A clear solution of neutral pork insulin, characterised by the particularly rapid onset and intensity of its effect.

(Neutral insulin injection.)

INDICATIONS: Diabetes mellitus.

CONTRAINDICATIONS: Hypoglycaemia.

DOSAGE: Administered by injection, in dosage determined for individual patient, usually given two, three or four times daily.

SHELF LIFE: Activity remains unchanged for two to three years when stored at 4-15° C.

HOW SUPPLIED: In vials of 10 mls, 40 international units/ml, and 80 i.u./ml.

SUPPLY RESTRICTIONS: P.I.

FIRST ISSUED: May 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 19, 1965

NEO-LEDERCORT eye and ear drops

MANUFACTURER: Lederle Laboratories Division, Cyanamid of Great Britain, Ltd., Bush House, Aldwych, London, W.C.2.

DESCRIPTION: Aqueous solution containing in each c.c. 1 mgm. of triamcinolone acetonide (as the hemisuccinate) and neomycin sulphate equivalent to 3.5 mgm. of neomycin base.

INDICATIONS: *Eye*: Useful in the treatment of conjunctivitis, corneal ulcer, acute and chronic uveitis, corneal oedema following removal of foreign bodies. *Ear*: Acute, chronic and eczematoid otitis externa and related non-infectious inflammatory conditions.

CONTRAINDICATIONS: Acute herpes simplex, vaccinia, varicella, virus diseases of conjunctiva or cornea, fungal diseases, tuberculosis and acute purulent infections.

METHOD OF USE: Two or three drops to be applied three or four times daily.

PRECAUTIONS: Treatment should be discontinued if irritation or idiosyncrasy occurs.

SHELF LIFE: Three years.

HOW SUPPLIED: In vials of 5 c.c.

SUPPLY RESTRICTIONS: Therapeutic Substances Act.

FIRST ISSUED: May 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 19, 1965

MEDOCODENE tablets

MANUFACTURER: Medo-Chemicals, Ltd., 144 Fortress Road, London, N.W.5.

DESCRIPTION: Flat, grooved, yellow tablets, each containing 500 mgm. of paracetamol, 8 mgm. of codeine phosphate and 20 mgm. of phenolphthalein. Non-constipating analgesic.

INDICATIONS: Relief of pain in neuralgia, rheumatic conditions, arthritis, sciatica, disc-lesions, headache, migraine, sinusitis, dysmenorrhœa, etc.

DOSAGE: One to three tablets three or four times a day.

HOW SUPPLIED: In containers of twenty-five, 100 and 250 tablets.

SUPPLY RESTRICTIONS: P.I.

FIRST ISSUED: May 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 19, 1965

MEDODORM tablets

MANUFACTURER: Medo-Chemicals, Ltd., 144 Fortress Road, London, N.W.5.

DESCRIPTION: Flat, grooved, white tablets, each containing 400 mgm. of chlorhexadol. Non-barbiturate hypnotic and sedative.

INDICATIONS: As a hypnotic in all cases of insomnia. As a sedative particularly in the treatment of anxiety syndromes and senile agitation.

CONTRAINDICATIONS: Severe renal, hepatic or heart disease.

DOSAGE: As a hypnotic: *Adults*: Two tablets one hour before bedtime. As a sedative: *Adults*: One tablet morning and midday. *Children*: Half a tablet when required.

HOW SUPPLIED: In containers of twenty-five and 100 tablets.

SUPPLY RESTRICTIONS: P.I., S.4B.

FIRST ISSUED: June 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 19, 1965

LOMODEX solution

MANUFACTURER: Fisons Pharmaceuticals, Ltd., Loughborough, Leics.

DESCRIPTION: A solution of 10 per cent. w/v dextran (average molecular weight 40,000) in 0.9 per cent. sodium chloride, or in 5 per cent. w/v dextrose.

Blood suspension stabiliser for restoring and maintaining blood-flow.

INDICATIONS: Extra-corporeal circulation technique of surgery, vascular surgery, etc.

CONTRAINDICATIONS: Marked thrombocytopenia.

METHOD OF USE: By intravenous infusion. As a priming fluid in heart-lung machines, etc.

PRECAUTIONS: Care must be taken not to overload the circulation.

STORAGE: Saline solution should be stored at room temperature; the dextrose solution in a cool place. Shelf life is then five years.

HOW SUPPLIED: In 540-ml infusion bottle.

SUPPLY RESTRICTIONS: Recommended on prescription only.

FIRST ISSUED: May 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 19, 1965

RAPITARD injection

MANUFACTURER: Novo Industri A/S, Copenhagen, Denmark.

DISTRIBUTOR: Evans Medical, Ltd., Speke, Liverpool, 24.

DESCRIPTION: Opalescent biphasic insulin preparation, containing beef insulin crystals (75 per cent.) suspended in neutral solution of pork insulin (25 per cent.).

(Biphasic insulin injection.)

INDICATIONS: Diabetes mellitus.

CONTRAINDICATIONS: Hypoglycaemia.

DOSAGE: Administered by injection, in dosage determined for individual patient, usually given twice daily, but once daily may suit some patients.

PRECAUTIONS: Rapitard injection is not suitable in rare cases of allergy to beef insulin. As with all insulin suspensions, should be shaken well, loaded into the syringe and injected immediately.

HOW SUPPLIED: In vials of 10 mls, 40 i.u./ml and 80 i.u./ml.

SUPPLY RESTRICTIONS: P.I.

FIRST ISSUED: May 1965.

THE CHEMIST AND DRUGGIST Guide to New Medicaments, June 19, 1965

MICROFOLEX tablets

MANUFACTURER: Rybar Laboratories, Ltd., 6 Park Avenue, Tankerton, Kent.

DESCRIPTION: Pale-green tablets, each containing 300 mgm. of ferrous gluconate and 50 µgm. of folic acid.

INDICATIONS: Prevention of megaloblastic anaemia of pregnancy.

DOSAGE: One tablet three times daily.

NOTES: Microfolex having a very small dose of folic acid has been introduced to satisfy a demand in certain quarters but the use of such a small dose has not yet been confirmed or proved to the company's satisfaction.

HOW SUPPLIED: In bottles containing 100 and 500 tablets.

SUPPLY RESTRICTIONS: Recommended on prescription only.

FIRST ISSUED: May 1965.

A PHARMACIST'S ANTHOLOGY

ALL-NIGHT PHARMACY

From the *Nottingham Guardian*, April 12, 1944

EIGHT o'clock, and we take over from the day staff. It is Saturday night, and we are lucky to have a couple of extra assistants to help us over the busiest period. We see a counter full of customers, and eight or nine chairs occupied by patients waiting for their prescriptions; all anxious to catch the last bus, or the one before, if possible. . . . Nine o'clock, and an appreciable slackening of the flow of customers. . . . Ten p.m. now, and tea is served. . . . From now onwards we do not have very many visitors, and can spare the time for a few words [with them].

THE DRUG WORLD IN AMERICA

Bulletin on events and trends in pharmacy, the industry and the administration

DR. RUDOLPH SEIDEN

AT the first meeting of national convention of the American Pharmaceutical Association (A.Ph.A.), recently held in Detroit, Vice-president Hubert H. Humphrey—the No. 1 pharmacist of the United States—received the Hugo H. Schaefer Award. The citation on the medal reads: "To Hubert H. Humphrey for outstanding leadership and service to the profession of pharmacy."

In a message to the A.Ph.A., Senator P. Hart said: "Somehow, somewhere along the road we've lost sight of one basic fact—generally, the expert on drugs is the pharmacist, not the doctor. And I don't say this just to please this audience. I say it because increased reliance on the pharmacist would make good sense." In regard to generic names on prescriptions he commented: "The refusal of many doctors to subscribe to generic prescribing implies a distrust of those who would have to make the ultimate decision of what particular brand of drug to dispense. If the responsibility of selection is given to the pharmacist, as is the case with generic prescriptions, the professional status of the pharmacist is enhanced. It means that the patient would rely on the doctor in his specific sphere of professional competence and on the pharmacist in his. . . ."

Pharmaceutical Convention Papers

Among the hundreds of papers read during the meetings, which nearly 4,000 members attended, were the following:

Group Practice for Pharmacists: F. H. BROWN, Windsor, Ont. The general practice of pharmacy has been undergoing rapid changes in the past decade as a result of both economic and scientific forces, resulting in the near defeat of the concept of the pharmacist-individual as key professional in pharmacotherapy. The answer is the concept of many pharmacists practicing from a common dispensary. Each pharmacist would become an authoritative sub-specialist in one aspect of the pharmacy practice. Economy in overheads, freedom from the pressure of management, concomitantly approved technical ability through specialisation and a reduction in competition are some of the advantages.

Interrelation of Pharmacy and Veterinary Medicine: L. MEYER JONES, Am. Vet. Assoc. The professions of pharmacy and veterinary medicine serve the health interests of the public and its livestock. Co-operation between the professions is essential. Yet, practicing veterinarians must supply drugs for care of livestock in many rural areas where pharmacy service is not available, but in areas with good pharmacy service much can be done to encourage co-operation between the professions and prescription writing by veterinarians. (A commission of members of the American Veterinary Medical Association and the A.Ph.A. was appointed to

work out a programme of closer collaboration between the two professions.)

The Drugs Used in 1865 Which Are of Value Today: P. A. POLITO and S. L. HUYCK, Loyola Univ. One hundred years ago, there were ninety vegetable drugs, twenty mineral drugs, and thirty-seven synthetic drugs in the U.S.P. (U.S. Pharmacopœia IV) which are still recognised in the current editions of the official compendia (U.S.P. XVI and N.F. XII).

Comparative Evaluation of Dextrose and Spray-dried Lactose in Direct Compression Systems: R. N. DUVALL and others, Miles Labs. Cerelease, a food grade dextrose, has a distinct cost advantage over spray-dried lactose which is used extensively as an excipient in the direct compression of tablets. Several formulations were evaluated under accelerated stability conditions relative to changes in hardness, friability, disintegration time and dissolution rate. Results indicated that Cerelease can be partly or completely substituted for spray-dried lactose in many formulations. Cerelease was found to give less browning than spray-dried lactose in formulations containing no amines, whereas it gave more browning when amines were present.

Co-chairmen: E. J. HANUS (Merck, Sharp & Dohme) and H. B. KOSTENBAUDER. **Inactivation of Antimicrobial Preservatives in Pharmaceutical Systems.** (A symposium; seven participants.) Among the speakers was L. LACHMAN (CIBA) who discussed the influence of container components on preservative inactivation. Rubber or plastic can adsorb, absorb or react with substances coming in contact with it; thus, it should be no surprise to find antibacterial agents being lost from solution or inactivated when pharmaceutical liquids are stored in containers having part of, or their entire structure composed of rubber or plastic or both. This situation of antimicrobial preservative inactivation by containers must not be taken lightly. With regard to rubber, it was found that the storage of vial solutions in an inverted position caused a greater loss of preservative. When the vial solutions were stored at room temperature for 12 weeks in the inverted position, the loss in chlorobutanol content ranged from 19 to 36 per cent., depending on the stopper used. Neoprene rubber stopper was the worst offender. The partition tendencies of five commonly used antibacterial preservatives (phenylethyl alcohol, *p*-chloro- β -phenyl-ethyl alcohol, chlorobutanol, benzyl alcohol, and methylparaben) in solutions stored at 25°C and at 40°C for four weeks showed that they exhibit much stronger partitioning into neoprene rubber than into natural rubber. Some rubber stopper manufacturers have resorted to lining the closure surface that will come in contact with the vial solution with lacquers containing polymeric materials as their major components. However, the tests proved that the epoxy-lined

stoppers imparted no protective action against preservative sorption.

Carotenoids for Colouring Sugar-coated Tablets: L. MAGID (Hoffman-La Roche). Carotenoids—beta carotene (yellow to orange), apo-carotenol (orange to red and red-brown) and canthaxanthin (peach-pink, peach, orange and red)—can be used successfully in the tinting of sugar-coated tablets, replacing (for this purpose) the most widely used FDC Red 4, which has recently been "de-listed" by the Food & Drug Administration (F.D.A.). Carotenoids are natural colours found in many fruits and vegetables; some of them have been synthesised in recent years. The carotenoids are fat-soluble and have therefore been widely used for colouring cheeses, margarine and many other foods. Recently developed water-dispersible forms extend the usefulness of carotenoids as colouring agents of drinks and water-soluble goods. In addition to providing colours, carotenoids also act as provitamin A since the human body converts them into vitamin A. Tablets coloured with carotenoids retained their colour when stored at room temperature for more than three years and they also survived stringent tests in light chambers and at elevated temperatures. Carotenoids appear to be useful also for colouring capsules, film-coated tablets, pharmaceutical suspensions, emulsions and cosmetic creams and lotions.

Space Drugs

The Pharmaceutical Manufacturers' Association has reported that medical experts at National Aeronautics & Space Administration (N.A.S.A.) tested certain drugs to make sure they would withstand space flight and be effective and safe for use by astronauts. During the recent flight of Gemini, six types of drugs were available aboard—an anodyne, an analgesic, an anti-emetic, an analeptic, an antibiotic and an antimalarial. The drugs were for administration either by mouth or by automatic injection in the leg through the space suit. All were contained in both in-flight and survival kits, except the antimalarial—which was available only in the survival kit. They were to be administered in flight only on orders of a ground-based flight surgeon. No drugs were used on that flight, but a drug was used once previously, when Astronaut Gordon Cooper administered a stimulant to himself 7 or 8 minutes before his difficult manual re-entry into the atmosphere.

Shortage of Steroid Raw Material

Sapogenins from barbasco root, which grows wild in Mexico and Central America, have become one of the most important raw materials for the manufacture of steroids. Because an increasing number of companies all over the world need the materials for production of oral contraceptives a shortage has developed. In addition, those highly complex compounds use up a greater volume of intermediates than is the case with some older hormones, thus boosting raw material requirements out of proportion to the actual increase in finished packaged goods. (Oil, Paint & Drug Reporter, 4-12.)

Jugo-Slav Pharmaceutical Industry

RISING OUTPUT BOOSTS EXPORTS

A STEADY growth in the production of pharmaceuticals to a level at which they now account for 15 per cent. of all chemical industry output is the pattern behind Jugo-Slavia's drive in the world export markets. Before the 1939-45 war, apart from one or two small commercial laboratories, pharmaceutical production did not exist in Jugo-Slavia, the industry's gross product totalling only 380 million dinars (£180,000), in 1939. The total rose to Din. 630 millions in 1946, Din. 8,142 millions in 1954, Din. 25,000 millions in 1960, and Din. 42,000 millions (about £20 millions) in 1962. Impetus behind that expansion of output was, of course, the post-war rise in living standards combined with the introduction of a modern, inclusive, health service. In addition to producing finished pharmaceuticals, Jugo-Slav factories have been steadily increasing the emphasis on production of pharmaceuticals in bulk, which today represent more than 10 per cent. of total production. Included in bulk production are sulphonamides, vitamins, hormones, anti-pyretics, serums, vaccines and antibiotics.

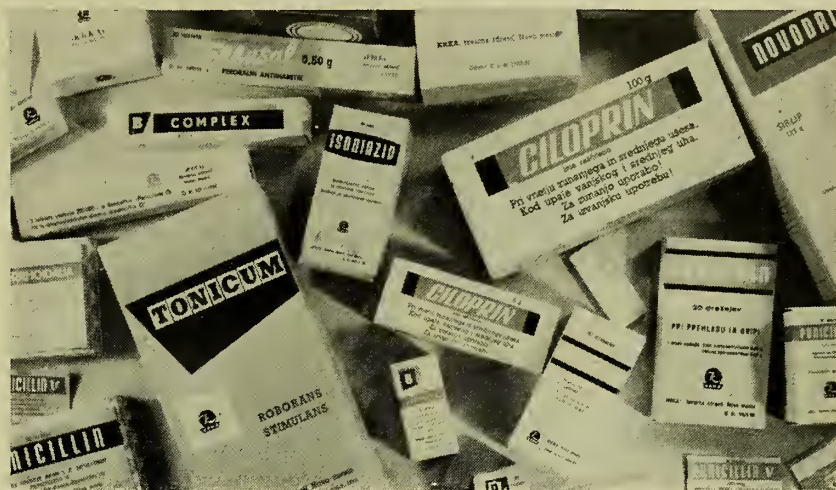
Scope of the Industry

The industry comprises eighteen major factories, of which three (accounting for only 7 per cent. of total production) produce pharmaceuticals for veterinary purposes, and four (4 per cent. of total production) cover the needs of the immunobiological and blood-transfusion services. Biggest of the country's pharmaceutical enterprises is the Galenika organisation, formed through a merger of three companies (Prolek, Eskulap and Galenika). Galenika produces 32 per cent. of the country's total output of pharmaceuticals. Second in terms of output is the Pliva factory at Zagreb, which produces about 30 per cent. of the total. It is also the oldest of Jugo-Slavia's pharmaceutical factories and the biggest producer of bulk pharmaceuticals. Founded in 1921, the works opened several new departments in 1951 and then began producing sulphonamides in quantity. Later it went into production in barbiturates, vitamin B₆, and a range of antibiotics. Finished pharmaceuticals produced include antihistamines, sedatives, hypotonics and tuberculostats. A new department opened in 1963 manufactures oxytetracycline and other tetracyclines. Third in importance is the Farmis organisation—accounting for 13 per cent. of the country's pharmaceutical output. It was formed by a merger of the Lek company of Ljubljana and the Krka company of Novo Mesto, and its output includes alkaloids from belladonna and barley; anaesthetics, ether and nitrous oxide; inorganic and organic chemicals, etc. The Krka factory produces antibiotics.

A factory at Skopje, founded in 1936, is the country's oldest manufacturer of opium alkaloids. Opium has been produced in Macedonia since

1835, and favourable climatic conditions, combined with a readily available cheap labour force, made it a

cal use in Jugo-Slavia. About 14 million doses went to Brazil and certain other countries. Serums and vaccines made up



Jugo-Slav pharmaceutical specialties.

profitable crop for export. The alkaloid works was, in fact, the first of its kind in the Balkans, and today alkaloids account for almost 5 per cent. of the industry's total exports. First serious attempt by Jugo-Slavia to break into world markets came in 1956, when the industry had at last caught up with the swiftly expanding post-war domestic demand for pharmaceuticals. By 1959, exports to a total value of more than Din. 450 millions (£214,000) were being realised, and in 1962 that total was almost doubled, as the following table shows:—

Exports of pharmaceuticals and pharmaceutical raw materials (in thousands of dinars*)

	1959	1960	1961	1962
Raw materials and semi-finished products ...	5,251	1,730	48,222	20,910
Finished and bulk pharmaceuticals...	51,044	59,127	197,960	139,862
Alkaloids ...	50,131	49,261	27,539	40,183
Vitamins ...	1,892	273	25,878	8,021
Serums and vaccines ...	51,027	51,349	93,946	329,700
Penicillin ...	327	1,112	1,924	18,736
Chloride and oxide of mercury ...	110,965	318,194	219,510	242,820
Silver Nitrate ...	185,709	77,653	129,696	87,974
Other products ...	1,241	679	3,982	9,580
Total ...	457,587	559,378	748,657	888,786

*2,100 dinars = £1 sterling.

Most finished pharmaceuticals go, naturally enough, to countries which have no, or only embryo, pharmaceutical industries of their own. But considerable quantities of pharmaceutical chemicals and bulk pharmaceuticals go to Holland, Italy, Switzerland, Austria, Denmark and the United Kingdom.

Serums and vaccines are, in the main, exported in bulk to purchasers in the West. Live oral anti-polio vaccine was exported for the first time in 1961, after two years of production and clinical

use in Jugo-Slavia. About 14 million doses went to Brazil and certain other countries. Serums and vaccines made up

a considerable part of the increase in exports between 1960 and 1962. There is no doubt that Jugo-Slavia's pharmaceutical industry sees the greatest possibility for expansion in the rising health standards and the much greater need for drugs and medicines in Asia and Africa, and that is where the most intensive drive of the industry's export organisations is likely to take place.

WORLD TRADE

"Dumping" in Australia.— The Australian Ministry of Customs and Excise is satisfied that dumping of ethylene oxide derivatives has taken place in Australia, the Tariff Board in Sydney has been told. The Department had found that dumping had occurred in imports from the United Kingdom, United States, France, Germany, the Netherlands and Canada.

Zinc Omadine Plant.—A new plant to produce zinc omadine (zinc salt of 1-hydroxypyridine-2-thionate) is under construction at Swords, co. Dublin, Irish Republic, for Linson, Ltd. (formerly Squibb, Ltd.). Production will begin in July and the whole will be exported. Zinc omadine is an active ingredient of anti-dandruff shampoos and is an effective bacteriostatic and fungicidal agent.

U.S. Imports of Crude Sulphur.— The United States Treasury Department has determined that imports of crude sulphur from Canada are not being dumped in the U.S. in violation of the American Anti-Dumping Act. The proceedings started last February and the Treasury says its determination was made after study of the complaints. It did not disclose who had filed the complaint but said that imports between January 1964 and March 1965 amounted to approximately \$9 millions.

Doctors Discuss Self-medication

IMMUNISATION AND "THE PILL" ALSO ON B.M.A. AGENDA

THE annual clinical meeting of the British Medical Association was held in Dundee, April 1-3.

At the opening plenary session, presided over by Sir Derrick Dunlop (chairman, Committee on Safety of Drugs), the title was "Ill-health Due to Drug Taking." Speaking on the dangers of self-medication, PROFESSOR E. F. SCOWEN, London (chairman, British Pharmacopœia Commission), said there seemed to be an adherence to the primitive concept of purgation and purification. Across-the-counter sales were responsible for much abuse of purgatives, especially in the elderly, and though it was neither possible nor desirable to abolish free sale there was an onus on doctors to educate the public. In dyspepsia excessive use was made of antacids. Among analgesics, the vast consumption of aspirin spoke volumes for its relative safety, but the possibility of gastric hæmorrhage should not be overlooked. Abuse of phenacetin led in chronic cases to severe irreversible changes in the kidney and some people would inevitably be silly in the use of freely available commodities. The use of quinine had hidden dangers, which could be lethal, and Professor Scowen speculated on whether that risk was justifiable with such a non-specific febrifuge, since its therapeutic advantages were questionable. The hidden danger lay in the availability of many preparations containing the drug. Another hidden danger was due to the gross excess of chloroform contained in some preparations, for example, chlorodyne, which contained over 12½ per cent., though the morphine content was minute. Yet addiction did occur and liver damage did ensue. The chloroform was only present to create a warming effect on the epigastrium. The preparation, said the speaker, should be discontinued. Antihistamines he thought should be labelled "To be taken under medical supervision only." Such drugs could reduce co-ordination time by 50 per cent.; possible consequences to the motorist and pedestrian were obvious.

Drug Dangers Reviewed

Dangers deriving from drugs prescribed by doctors were reviewed by PROFESSOR G. M. WILSON, Sheffield, who dealt with possibilities of overdosage, due to doctor-patient-pharmacist misunderstanding or (mainly) to attempted suicide; delayed excretion caused by a renal defect; delayed metabolism, with hepatic lesions, in the use of chloramphenicol in the newborn, and in enzyme deficiencies; pharmacological side effects, found with mono-amine oxidase inhibitors, corticosteroids used in rheumatoid arthritis, drugs used for mental disturbances and tetracyclines used for specific infections with alterations of the flora of the alimentary canal resulting in secondary invasion. Hypersensitivity could also lead to severe effects and psychological factors could not be discounted.

Recognition of toxic effects due to drugs was immensely important. No medical history was complete without a list of drugs recently taken, but difficulties often arose in getting that information. Containers of medicines should be labelled with the name of the drug. Full reporting of toxic reactions which enabled the incidence of serious ill effects to be put on a quantitative basis was essential for evaluating the benefit/risk equation.

Risk to Children

The poisoning of children by drugs bought by or prescribed for others was discussed by DR. J. O. CRAIG, Glasgow. Dr. Craig highlighted changes in the incidence of causes of poisoning. For young children barbiturates had never ranked so high as salicylates but now tranquillisers and antidepressants were in second place and continuing to rise. What could be done to mitigate the situation? Time of day was important. Just before meals, when the child was hungry and the mother pre-occupied was a period of great risk. The only remedy was to improve the child's environment by the use of locked cupboards for medicines and household materials. It was ill-advised to refer to medicines as sweets as an inducement to acceptance. The public tended to regard aspirin, being so cheap and plentiful, as necessarily safe. Dr. Craig recommended that aspirins should never be overprescribed and never used for a child under two years of age. "Junior" aspirins, being palatable, tended to encourage the taking of more. In young children gr. 20 in twenty-four hours should not be continued for more than forty-eight hours. The doctor should never instruct the mother to "give aspirin" because that was so frequently taken as sanction to administer the drug *ad libitum*.

Discussion was opened by PROFESSOR A. G. MCGREGOR, Aberdeen, who was critical of the large number of preparations combining more than one drug. The effect of the different components was difficult to assess, as they frequently showed effects in animals different from those in man.

DR. E. V. KUENSSBERG, Edinburgh, spoke of the incidence of night and emergency calls on medical men due to drug-induced illness. It now accounted, he said, for 25 per cent. of calls. Answering questions, PROFESSOR SCOWEN said that the dangers of self-medication could be minimised by relatively simple changes in the Poisons Rules. Public amenity should not be confused with public licence. DR. CRAIG advised against using paracetamol for children and advocated chloral to keep a child quiet. He was not, however, eager to condemn mist. acid. acetylsal. pro inf., N.F., which was less likely than tablets to cause untoward side effects.

Summing up, SIR DERRICK DUNLOP re-emphasised that it was essential that a patient should not take medicine on his own when under treatment by his

doctor. It was pharmacists, he complained, who were holding up the use of *nomen proprium*. Doctors would prefer N.P. unless they themselves specified otherwise.

Preventive Inoculation

Opening the symposium session on preventive inoculation, DR. J. H. F. BROTHERTON, Edinburgh, contrasted the former difficulty of educating the public to the need for smallpox vaccination with the current enlightened attitude. He contrasted the pre-war time lag between the offer and the realisation of protection against diphtheria with the speed of resolving a similar problem with poliomyelitis. The chairman was in favour of simplifying immunological programmes by, for example, the use of multiple vaccines.

The "very real" long-term benefits of diphtheria immunisation included the benefit of primary experience if boosting became necessary; reduced severity if the immunised subject fell victim to the disease, and lessened risk of mortality. In pertussis there was a reduced mortality incidence, but the effect of chemotherapy should not be overlooked. Boosting at 5-10 years would give good immunity. The Salk vaccine for poliomyelitis was "more or less out." Its immunisation effect was good but of short duration. Extensive use of Sabin live vaccine could, as in smallpox vaccination, have an eradicator effect. The hazards were practically nil, but propaganda was required to make the procedure acceptable. A live attenuated vaccine gave a reasonably satisfactory duration of protection against measles.

The prevention of whooping cough was discussed by PROFESSOR R. CRICKSHANK, Edinburgh. During the past five years, he said, fatalities had been reduced to thirty cases per year, but many children still required protection. Most deaths occurred during the first six months of life and there appeared to be a risk of infection being carried by older siblings to the younger children in a family. There was a case for re-vaccinating young school children. A serious disadvantage of currently available vaccines was that the dosages required introduced a large amount of foreign protein.

From 1944 the bulge in population had caused an increase in modifications, but there had been a steady decline in deaths. By 1957-58 most local authorities were offering immunisation and now 70 per cent. of children under three years of age were being immunised.

DR. E. M. DARMADY, Portsmouth, said it was not sufficiently recognised how often infection followed injection. Such infections were usually caused by:—Injecting fluid containing traces of inadequately sterilised blood or fluid from one patient to another; using a single syringe to inject a number of persons, even if the needle were changed between injections; contamination of

sterilised syringe needles by contact with fingers, dust, droplets of saliva or by placing in open bowl or kidney dish containing so-called sterile water; contamination of injection fluid. Methods that adequately sterilised syringes and needles were:—Dry heat, steam under pressure and (for disposable syringes) radiation and gases. Completely unsatisfactory methods were boiling in water, immersion in oil at 140°C., or using 70 per cent. alcohol or disinfectants. The most common infections that occurred were hepatitis, tuberculosis, syphilis, gas gangrene, tetanus, septic meningitis and malaria.

Dry heat was the best sterilisation method. Recommended times at holding temperature (degrees C/minutes) were: 160/45, 170/18, 180/7½, 190/1½. Time taken to reach holding temperature extended operation time to about 50 minutes. Steam could only sterilise what it touched and syringes had to be in two separate parts, requiring awkward re-assembly with sterile forceps. The advantage of steam was the shorter holding time required.

Disposable plastic syringes were good, but problems of sterilisation were involved. With radiation a linear accelerator was quick but penetration slight. A cobalt source was better, and conveyor-belt methods could be used. The method was more applicable to manufacture, but higher cost had led to a lowering of quality of the outer covering, making loss of sterility more frequent. Coverings should be the same as for the hot-air method. Ethylene oxide, like steam, had to penetrate to all surfaces and the coverings normally used were unsatisfactory.

DR. H. J. PARISH (research fellow, Wellcome Trust) said that everyone should be actively immunised against tetanus. When properly used, toxoid was reliable and its side-effects almost always negligible. It obviated the hazards of passive immunisation with serum. Prophylactic antitoxin, valuable in large-scale prophylaxis, had two disadvantages: Protection could not be obtained without risk of allergic side effects in 5-20 per cent. of persons, and antitoxin might be eliminated rapidly when the patient had previously had horse serum. The degree and duration of protection were therefore uncertain. Adsorbed toxoid, which could be administered at the same time as antitoxin (but which should also be given to initiate or reinforce immunity even when antitoxin was not considered necessary) was a valuable new preparation in tetanus prevention.

Live Vaccines

Problems of the safety of live vaccines were discussed by DR. J. W. HOWIE (Public Health Laboratory Service), who said that a live vaccine might do harm if: (i) it was not adequately attenuated for use in man or spontaneously underwent a change from its attenuated towards its fully virulent form; (ii) it was contaminated with harmful agents, either alive or dead; (iii) too big a dose was given; (iv) the wrong microbe was used in error in making the vaccine; (v) its immunising powers were deficient; or (vi) spreading

from the vaccinated, it caused infection in unvaccinated persons for whom vaccination might not be desirable. Dr. Howie gave the following precautionary measures to be applied:—

(i) Laboratory checking to guarantee the identity of the microbe employed and to be sure that it retained the characters peculiar to the attenuated form. (ii) Laboratory buildings used for vaccine manufacture to be strictly supervised, kept for that purpose, and separated from any laboratory in which virulent organisms were kept. (iii) Workers to be free of communicable disease and to work with strict aseptic precautions. (iv) Culture media, including tissue cultures, to be checked for freedom from dangerous contaminants including bacteria, viruses, allergens, and harmful chemicals. (v) The vaccine as prepared to be assayed to be sure that it contained the right amount of living agent and was free from other micro-organisms and that, where possible, the micro-organisms contained in the vaccine were in the same state of attenuation as the original culture used to prepare the vaccine. (vi) New forms of live vaccine to be introduced under gradual and strictly supervised conditions to be sure that any unforeseen ill effects were limited in their incidence and quickly recognised. Tests should be made to check the immunising powers of the vaccine. (vii) Even when the vaccine had been accepted as a general immunising agent, systematic surveillance of the general population to observe the time relationship between vaccination and notified cases of the relevant disease. Sufficiently large samples of vaccinated persons needed to be kept under surveillance for long enough periods to observe any appearance of important ill effects.

Protection with Safety

New live virus vaccines were described by DR. A. P. GOFFE (Wellcome Research Laboratories), who said that in all vaccines the attempt was made to blend protective effect with a high order of safety. The latest vaccine (measles) presented unique problems. Its development had proceeded logically and without the undue haste that had proved disastrous in the early stage of polio vaccine. The early killed-virus vaccines, though largely devoid of reactions, had low potency and produced only transient immunity. Live-virus vaccines were found to convey solid immunity, but caused in some a reaction almost as severe as the disease. In the United States those reactions had been found largely controllable by gamma globulin, but supply difficulties ruled it out as a routine procedure. The development of further attenuated strains was a promising approach to reducing reactions. The most hopeful outlook for sophisticated societies seemed to be the use of killed-virus vaccine followed, after an interval of one or two months, by live-virus vaccine.

In a plenary session devoted to "Oral Contraception," DR. A. KLOPPER, Aberdeen, related the types available to the four parent steroids: Testosterone, progesterone, 17-hydroxyprogesterone, and 19-nortestosterone. Nine of the ten pre-

parations on the British market contained derivatives of 19-nortestosterone and could be classified as containing norethynodrel plus mestranol; ethynodiol diacetate plus mestranol; lynestrenol plus mestranol; norethisterone plus mestranol; or norethisterone acetate plus ethinylestradiol. Only one preparation containing a derivative of 17 α -hydroxyprogesterone was available in Britain. It contained megestrol acetate plus ethinylestradiol. The picture was complicated by the added oestrogens, which were themselves ovulation suppressors. Possibly much ovulation suppression was due to the oestrogen, the progestin being synergistic only.

Effect on Hormone Secretion

DR. J. A. LORRAINE spoke on the effect of anti-ovulatory compounds on hormone excretion. He said that the possible sites of action were considered to be either directly on the ovaries or on the anterior pituitary gland or on both simultaneously. At present the evidence was conflicting and separate and reliable assay methods for the two functions were required. Despite those deficiencies he considered that no long-term deleterious effects were likely from continued use of oral contraceptives.

DR. C. R. GARCIA (Worcester Foundation, United States, who was involved in the classical studies in Puerto Rico in 1956), expressed the view that oral contraception remained effective even after prolonged use. There was no evidence of delayed menopause and, on discontinuing the pill, women desiring pregnancy were normally successful quite quickly, thus demonstrating reversibility of action of oral contraceptives. Hepatic damage studies had been made with 17-alkyl substituted steroids. Jaundice was rare and reversible on cessation of medication. The mechanism of jaundice was possibly competition between the steroid and bilirubin for glucuronic acid to form a conjugate for excretion. On blood coagulability nothing definite stood to the discredit of the contraceptive steroids. They were not carcinogenic, and even possibly anticarcinogenic.

DR. T. N. MCGREGOR, Edinburgh, suggested that, because of the publicity given to the pill, women would tend to go to their doctor for advice on contraception rather than seek advice elsewhere as in the past. The pill was the safest contraceptive so far available and was almost 100 per cent. safe if the requirements of administration were strictly adhered to. Fertility was not impaired and might even be enhanced. Contraindications were malignant disease of the breasts or genital organs and liver disease. Effectiveness was not in doubt but there was speculation about the effects on other organs and tissues. It should be borne in mind that systemic effects would occur in normal pregnancy. The pill had been in use for less than a decade and the incubation period of cancer was twenty years. It was thus too early to assess the possibility of malignancy arising directly, but it should not be overlooked that other sex hormones had been in use for thirty years.

TRADE REPORT

The prices given are those obtained by importers, or manufacturers for bulk quantities or original packages. Various charges have to be added whereby values are in many instances augmented before wholesale dealers receive the goods into stock. Crude drugs and essential oils vary greatly in quality and higher prices are charged for selected qualities.

LONDON, JUNE 16: Another quiet week in all sections of the market was recorded with the recent Whitsun holiday and the beginnings of the holiday season both having an effect.

Among CRUDE DRUGS some movement was reported in SEEDS. Indian FENNEL for shipment was being quoted at 125s. per cwt., 40s. lower than the previous week's price. Moroccan FENUGREEK was 1s. 6d. dearer at 39s. per cwt. for shipment. Changes in PEPPER prices were mostly small but BLACK SARAWAK were again available on the spot. TURMERIC for shipment fell a further 5s. to 100s. per cwt. Among SPICES prices for African, Jamaican No. 3 and Cochin GINGER were generally reduced, while CARDAMOMS and CASSIA *lignea* moved upward.

In PHARMACEUTICAL CHEMICALS, B.P. grade LACTIC ACID and CALCIUM SODIUM LACTATE were increased by 2d. per lb. on all rates. NICOTINIC ACID and NICOTINAMIDE were also dearer among vitamins.

Pharmaceutical Chemicals

Where material is of foreign origin prices given below may be subject to import surcharge.

ANEURINE HYDROCHLORIDE. — (Per kilo.) One-kilo lots, 126s.; 10-kilos, 123s. 6d. The MONOHYDRATE is 129s. 6d. and 127s. for same quantities.

ANTIMONY SALTS. — CHLORIDE, SOL., B.P.C., 1934, carboys, 5s. 7d. per kilo; FLAKE, 14s. 4d. kilo.

ASCORBIC ACID. — One-kilo, 44s. 6d.; 10-kilos, 41s. per kilo; 25-kilos, 39s. 6d.

ATROPINE. — Per oz. for 16-oz. lots; ALKALOID and METHONITRATE, 39s.; METHYLBROMIDE, 38s. 6d.; SULPHATE, 34s. (1,181s. for 1-kilo).

BACITRACIN. — Sterile topical is 53s. per mega unit for 25 m.u.

BEMEGRIDE. — B.P.C. is 320s. per kilo.

BENZOCAINE. — B.P. is 13s. 3d. per lb. in 1-cwt. lots.

BORAX. — B.P. grade, 1 ton and upwards: Granular, £54 10s.; crystals, £58; powder, £59; extra fine powder, £60 per ton, all in hessian sacks. Less £1 for paper bags. Commercial from £44 10s. to £51 per ton as to type and packing. Anhydrous borax is £65 18s. per ton in hessian bags or £64 18s. in paper bags, including import surcharge; carriage paid in Great Britain. Surcharges for small quantities: Less than 1 ton but not less than 10 cwt., 2s. per cwt.; 5 to 9 cwt., 4s.; 1 to 4 cwt., 8s.

BORIC ACID. — B.P. grade in 1-ton and upwards (per ton): Granular, £84; crystals, £97; powder, £90 10s.; extra-fine powder, £92 10s. per ton in lined hessian bags, carriage paid in Great Britain. Less £1 per ton if supplied in paper bags. Technical from £70 to £80 10s. per ton according to type and packing.

CAFFEINE. — Hydrate in 50-kilo lots and over, 28s. 1d. per kilo; CITRATE, 20s. 11d.

CHARCOAL. — Medicinal activated, B.P.C. in 1-cwt. lots, £22 10s. per cwt.

CHLORAL HYDRATE. — One-cwt. lots quoted at 4s. 3d. per lb.

CHLORPHENESIN. — 50-kilo lots are 72s. 6d. per kilo.

CALCIFEROL. — One-kilo lots are from 2s. 7½d. per gm. in standard packages.

CINCHOCAINE. — HYDROCHLORIDE, B.P., is 975s. per kilo.

CREOSOTE. — B.P.C., 1959, ex beechwood, 100 kilos, 15s. per kilo; 500 kilos, 14s. 6d.

CRESOL. — B.P. quality, 7s. 9d. per gall. in 5-gall. lots.

CYANOCOBALAMIN. — Under 25-gm. lots, 66s. 8d. per gm.; under 100-gm., 65s. per gm., 100 gm., 63s. 4d. per gm.

DICOPHANE. (DDT.) — One-ton lots, 70-74 per cent., 2s. 3d. per lb.

DIENOSTROL. — B.P. is 1s. per gm. for 5-ki'o lots.

DITHRANOL. — B.P. offered at 6s. 9d. per oz. for 7-lb. lots.

DOMIPHEN BROMIDE. — B.P.C. grade, 32s. per lb. in 1-cwt. lots.

EMETINE. — One-kilo lots HYDROCHLORIDE, 11,431s. per kilo. — BISMUTH IODIDE, 4,952s. per kilo.

FOLIC ACID. — B.P. and U.S.P., 1-kilo lots, £20 10s. per kilo.

FORMALDEHYDE. — B.P. solutions, 5-drum lots, 690s. per ton, delivered.

GLUCOSE. — MONOHYDRATE, B.P., powder, 77s. per cwt., delivered in 1-ton lots; ANHYDROUS, 134s. LIQUID, in drums, 56s. per cwt. for 5-drum lots.

GLYCERIN. — Chemically pure (per cwt.).

	Over 25 tons	5 tons and under 25 tons	1 ton and under 5 tons	Under 1 ton
TANK WAGONS				
10-14 tons	176 0	179 6	—	—
5-10 tons	177 6	179 6	—	—
DRUMS				
5 cwt.	180 0	182 0	185 0	191 0
2½ cwt.	182 6	184 6	187 6	193 6
TINS				
56 lb.	184 0	186 0	189 0	195 0
28 lb.	205 0	207 0	212 0	220 6
14 lb.	211 0	213 0	218 0	226 6

Minimum delivery 1-cwt. Drums charged and returnable. Minimum terms for technical grade glycerin s.g. 1.2627 are 171s. per cwt. for lots of over 25 tons in bulk deliveries of 10-14 tons.

GLYCEROPHOSPHATES. — Per kilo in 50-ki'o lots: CALCIUM, B.P.C., 28s. 2d.; B.P.C., 35s. 5d.; MANGANESE, N.F.X., 49s. 7d.; POTASSIUM, 50 per cent., B.P.C., 8s. 6d.; SODIUM, 50 per cent., B.P.C., 5s. 11d. and powder, B.P.C. 1949, 18s. 8d.; GLYCEROPHOSPHORIC ACID, 20 per cent., 10s. 8d.

HOMATROPINE. — 16-oz. lots (per oz.): ALKALOID, 30s. 6d.; HYDROBROMIDE, 24s. 6d.; HYDROCHLORIDE, 28s. 6d.; METHYLBROMIDE, 25s. 6d. 1-oz. rates are 1s. 6d. per oz. above those rates.

LACTATES. — CALCIUM, B.P., 270s. per cwt. in 5-cwt. lots and 280s. for 1-cwt. lots: CALCIUM SODIUM, 4s. 11d. and 5s. per lb.

LACTIC ACID. — B.P. 4s. 7d. per lb. for 12-winchester lots and 4s. 2d. for 5-cwt. lots. Edible, 80 per cent. acid, £270 per ton for under 1-ton lots: 12-winchesters, 2s. 9d. per lb.

MENAPHTHONE. — (50-kilo lots), B.P. 122s. 6d. per kilo; ACETOMENAPHTHONE, B.P., 122s. 6d.; WATER-SOLUBLE (menadione sodium bisulphate), 81s.

MERCUROCHROME. — 5-ki'o lots are 102s. 6d. per kilo.

METHYL TESTOSTERONE. — Per kilo, £95.

NEOMYCIN. — SULPHATE, B.P., 590s. per kilo; 5-kilos, 550s. per kilo.

NICOTINAMIDE. — (Per kilo). One kilo, 42s.; 10 kilos, 39s. 9d.; 50 kilos, 37s. 9d.

NICOTINIC ACID. — One kilo, 32s.; 10 kilos, 29s.; 50 kilos, 27s. per kilo.

NIKETHAMIDE. — 50-kilo lots are 52s. 9d. per kilo.

OESTRADIOL. — MONOBENZOATE, 14s. 6d. per gm.

OPIATES. — Home trade prices (per kilo) subject to D.D.A. Regulations.

	1 kilo and over	Under 1 kilo
	s. d.	s. d.
CODEINE		
ALKALOID ...	1,933 0	1,939 0
H. DROCHLORIDE ...	1,665 0	1,701 0
PHOSPHATE ...	1,445 0	1,480 0
SULPHATE ...	1,665 0	1,701 0
MORPHINE		
ACETATE ...	1,762 0	1,798 0
ALKALOID ...	2,159 0	2,194 0
H. DROCHLORIDE ...	1,762 0	1,798 0
SULPHATE ...	1,762 0	1,798 0
TARTRATE ...	2,115 0	2,150 0
ETHYLMORPHINE		
ALKALOID ...	2,229 0	2,265 0
H. DROCHLORIDE ...	1,903 0	1,939 0
DIAMORPHINE		
ALKALOID ...	2,106 0	2,141 0
H. DROCHLORIDE ...	1,965 0	1,930 0

† Powder 6d. more. * Scales 3s. per kilo more.

PARACETAMOL. — One-ton lots, 10s. 2d. per lb.

PARALDEHYDE. — B.P. in 12-winchester lots, 2s. 10d. per lb. (6s. 3d. kilo); 10-gall. carboys, 2s. 4d.

PENICILLIN. — SODIUM, POTASSIUM, or PROCAN, 6d. per mega unit.

PTHALIC ANHYDRIDE. — Domestic material ex contract, £90 per ton.

PIPERAZINE. — Less than 50 kilos are: ADIPATE, 10s. 3d. per kilo; CITRATE, 18s. 6d.; HEXAHYDRATE, 13s. 3d.; PHOSPHATE, 20s. 6d.; TARTRATE, 19s. 6d.

PREDNISOLONE. — ALCOHOL and ACETATE from 7s. 6d. per gm.

PREDNISONE. — One-kilo lots, ALCOHOL and ACETATE, 7s. per gm.

PROGESTERONE. — Price is 1s. 3d. per gm. for 1-kilo lots.

PYRIDOXINE. — One kilo, £32 per kilo; 10 kilos, £31 10s. per kilo.

RIBOFLAVINE. — One kilo, 217s. 6d. and 10 kilos, 212s. 6d. per kilo.

SANTONIN. — 5-cwt. lots, 320s. per kilo.

SODA ASH. — Four-ton lots, from 300s. per ton delivered.

SODIUM PANTOTHENATE. — Per kilo, 115s.

STEARATES. — Minimum 1-ton lots, ALUMINIUM (No. 1), £243 10s. per ton and (non-gel.), £281; CALCIUM (precipitated), £243 10s.; LEAD (30 per cent.), £245; MAGNESIUM (standard), £257 and (super-fine), £287. ZINC, £246 to £276 as to grade.

STREPTOMYCIN. — BASE or SULPHATE, 9d. per gm. Same price for DIHYDRO.

THYMOL. — One-cwt. lots are 11s. 3d. per lb.

VITAMIN A. — Synthetic. Supplied in concentrate 1 million international units per gm. as acetate at £17 14s. 2d. per kilo and oil-soluble palmitate at £15 12s. 6d. for one-kilo lots.

VITAMIN D. — D₂ powder for tableting 850,000 i.u. per gm. 125s. per kilo; in oil, 1 million i.u. per gm. 67s. 6d. per kilo for 100,000 m.i.u. Crystalline: see under calciferol. D₃ in oil (1 mega per gm.), threepence per mega for less than 100-gm. ampoule.

VITAMIN E. — Natural d alpha tocopheryl acid succinate, hydrogen salt, 1,210 i.u., 25 gm. lots, 9d. per gm.; 100 gm., 8d.; 1 kilo, £25. Synthetic dl, 1,000 units per gm., the prices are 8d., 5d. and £18 for the same quantities.

Crude Drugs

ACONITE. — Spot, Spanish, *napellus*, 2s. 4d. per lb.; shipment, 2s. 3d., c.i.f.

AGAR. — Kobé No. 1, 13s. per lb. in bond; shipment, 12s. 6d., c.i.f. Spanish scarce on the spot at 15s. 6d., duty paid, nominal.

ALOES. — Primes, 270s. per cwt. spot. Shipment, 265s., c.i.f. Curaçao, spot, 265s.; 260s., c.i.f.

ANISE. — Chinese STAR, 152s. 6d. per cwt. spot, duty paid; f.a.q. for shipment, 115s., c.i.f.

ANNATTO. — Madras, f.a.q. seed, spot, 300s. per cwt.; no shipment offers.

ARROWROOT. — St. Vincent from 1s. 3d. to 1s. 6d., as to grade.

BALSAMS. — Per lb.: CANADA: 24s. 6d., c.i.f. COPAIBA: B.P.C. 11s. 6d. PERU: 23s., spot; shipment, 22s., c.i.f. TOLU: B.P., from 10s. 6d. to 27s. 6d.

BAY.—LEAVES, 1s. 9d. per lb., spot.

BELLADONNA. — LEAVES, 5s. 6d. per lb., spot. ROOT, 1s. 8d. per lb., spot; shipment, 1s. 7d., c.i.f.

BENZOIN. — Sumatra block spot from £20 to £40 per cwt. as to quality.

BUCHU. — Shipment nominal; spot, cleared.

CARDAMOMS. — Aleppy greens, spot, 19s. per lb.; shipment, 21s. 6d., c.i.f.

CASSIA. — *Fistula*, 105s. per cwt. spot; *lignea*, whole shipment, 205s., c.i.f.; selected broken, 195s., c.i.f.

CHAMOMILE. — Belgian flowers scarce at from 20s. per lb., upwards spot; German type, 7s. 6d.

CLOVES. — Zanzibar, spot, 2s. 10½d. per lb. standard grade, shipment, 2s. 7½d., c.i.f.

DIGITALIS. — *Purpurea* leaves, 2s. 6d. per lb.

ELEMI. — Spot, 1s. 8d. per lb.; shipment: new crop, 1s. 5d., c.i.f.

ERGOT. — Portuguese, spot, 9s. 9d. per lb.; shipment, 9s. 6d., c.i.f.

GENTIAN. — Root, 190s. per cwt. spot; shipment, 185s., c.i.f.

GINGER. — (Per cwt.) Nigerian, June-July shipment (c.i.f.), split, 100s.; peeled, 210s. African, spot, 235s. per cwt.; shipment, June-July, 225s., c.i.f. Jamaican No. 3, spot, 325s.; shipment, 280s., c.i.f. Cochín, spot, 300s., June-July shipment, 312s. 6d., c.i.f.

GUM ACACIA. — Kordofan cleaned sorts, 165s. per cwt. spot; shipment, 147s., c.i.f.

HONEY. — (Per cwt.). Australian light amber, spot, 115s. to 120s.; and medium amber, 110s. to 115s.; Argentine, 110s. to 115s.; Canadian, 175s. to 180s.; Mexican spot, 115s. to 120s.

IPECACUANHA. — High testing material short on spot. Matto Grosso for shipment, 55s. per lb., c.i.f. and spot, 60s. Costa Rican, 72s., c.i.f. and 75s., spot.

KARAYA. — No. 1 f.a.q. gum, spot, 415s.; No. 2, 300s. per cwt.

KOLA NUTS. — African, spot, 6½d. per lb., nominal; shipment, 5½d., c.i.f.

LANOLIN. — ANHYDROUS B.P. is from 2s. 6d. to 2s. 10d. per lb. in 1-ton lots delivered free drums. Commercial grades from 1s. 9½d.

LEMON PEEL. — Spot, 1s. 9d. per lb.; partially extracted, 1s.

LINSEED. — Whole, 72s. 6d. per cwt.; crushed, 110s.

LIQUORICE. — Natural root: Russian, 67s. 6d. per cwt.; Anatolian, 57s. 6d.; Anatolian decorticated, 170s. Block juice: Anatolian, 210s. to 220s. per cwt. Italian stick from 395s. to 460s. per cwt.

LOBELIA. — Dutch on the spot offered at 6s. 6d. per lb.

MACE. — Whole pale blade, 14s. per lb. for forward delivery.

MENTHOL. — (Per lb.). Chinese for shipment, 29s., c.i.f.; spot, 30s., in bond, Brazilian for shipment, 30s., c.i.f.; spot, 33s. 9d. duty paid and 31s. in bond.

MERCURY. — Spot nominally £230 per flask of 76-b. ex warehouse.

NUTMEGS. — (Per lb.). West Indian, spot, 110s., 7s. 6d.; sound unassorted, 7s.; defectives, 5s. 6d. East Indian for shipment, 80s., 8s. 6½d.; 110s., 6s. 11d., b.w.p. 4s. 4½d., c.i.f.

NUX VOMICA. — Cochín, 80s. per cwt. on the spot; shipment, 65s., c.i.f.

ORANGE PEEL. — Spot: Sweet ribbon, 1s. 8d. per lb., bitter quarters: West Indian, 10½d.; Spanish, 1s. 9d.

PEPPER. — White Sarawak spot, 3s. 1½d. to 3s. 3d. per lb.; shipment, 3s. 1d., c.i.f. Black Sarawak, 3s. 1d. spot; shipment, 2s. 8d., c.i.f. Black Malabar, spot, 3s. 5d. per lb.; shipment, 365s. per cwt., c.i.f.

PODOPHYLLUM. — Spot per cwt.: *Emodi*, 325s. (225s., c.i.f.).

PYRETHRUM. — Extracts — partially de-waxed, 25 per cent. pyrethrins, 69s. to 65s. 6d. per lb.; pale, 82s. 6d. to 79s.; crude oleoresin, 60s. 6d.

QUILLAIA. — For shipment, 135s. per cwt. c.i.f.; spot, 125s.

RHUBARB. — Manufacturing grades offered at from 5s. to 8s. 6d. per lb., other grades at 12s. 6d. and 15s. 6d.

SAFFRON. — Mancha superior spot, 625s. per lb.; Rio, 600s.

SARSAPILLA. — Jamaican native red spot, 3s. 6d. per lb.; shipment, 3s., c.i.f.

SEEDS. — (Per cwt.). ANISE. — Turkish, 205s., duty paid; Spanish, 255s., duty paid. CARAWAY. — Dutch, 135s., duty paid. CELERY. — Indian, 172s. 6d., spot; shipment, 152s. 6d., c.i.f. CORIANDER. — Moroccan, 57s., duty paid; shipment, steady at 47s., c.i.f. Rumanian whole, quoted at 52s. 6d., c.i.f. CUMIN. — Cyprian, 325s.; Indian, 295s.; Moroccan, 320s., duty paid; shipment; Indian, 255s., c.i.f.; Moroccan firmer at 237s. 6d., c.i.f. DILL. — Indian, 105s., spot; shipment, 85s., c.i.f. FENNEL. — Chinese, 130s., duty paid; shipment, Chinese, 110s., c.i.f.; Indian quoted at 125s., c.i.f. FENUGREEK. — Moroccan, 47s. 6d., duty paid; shipment, 39s., c.i.f. MUSTARD. — English, 50s. to 75s. according to quality.

SENEGA. — Spot, 19s. 6d. per lb.; shipment, 19s., c.i.f., nominal.

SLIPPERY ELM BARK. — Spot offered at 3s. 4d. per lb.

SQUILL. — Italian, spot, 185s. per cwt.; shipment, 175s., c.i.f.

STRAMONIUM. — Continental LEAVES, 85s. per cwt., spot.

STYRAX. — Spot, 13s. 6d. per lb.; shipment, 13s. 3d., c.i.f.

TONQUIN BEANS. — Para spot, 4s. 6d. per lb.; shipment, 3s. 10d., c.i.f.

TRAGACANTH. — Ribbon, No. 1, £175 per cwt.; No. 2, £160.

TURMERIC. — Madras finger on spot is 130s. per cwt.; shipment now quoted at 100s., c.i.f.

VALERIAN ROOT. — Indian, spot, 210s. per cwt.; shipment, 200s., c.i.f.

VANILLIN. — (Per lb.). 5-cwt. lots, 21s. 6d.; 1-cwt., 21s. 9d.; 56-lb., 22s.; small quantities, 22s. 6d. All plus temporary import charge.

WAXES. — (Per cwt.). BEES' — Dar-es-Salaam, 450s.; shipment, 422s. 6d. Sudanese, spot, 400s., in bond; shipment, 385s., c.i.f. CANDELLA, spot, 465s.; forward, 460s. landed. CARNAUBA, fatty grey, spot, 320s.; shipment, 297s. 6d., c.i.f.; prime yellow spot, 660s.; shipment, 600s., c.i.f.

WITCH HAZEL LEAVES. — Spot quotations are 2s. 2d. per lb.; shipment, 2s. 1d., c.i.f.

Essential and Expressed Oils

CALAMUS. — Spot, from 70s. to 100s. per lb. as to origin.

CAMPOR, WHITE. — Chinese for shipment, 4s. 6d., c.i.f., per kilo; spot, 6s.

CANANGA. — Spot from 45s. per lb.

CARAWAY. — From 40s. to 45s. per lb. as to source.

CARDAMOM. — English distilled, 375s. per lb.

CASSIA. — Spot from 55s. per lb. for 80-85 per cent.

CASTOR. — Home produced B.P. oil, spot, £130 per ton naked ex mill (2-ton lots).

CEDARWOOD. — American from 7s. 6d. per lb. on the spot; East African, 7s. 6d.

CELERY SEED. — Quotations are from 120s. per lb. for Indian.

CINNAMON. — Best English-distilled, 720s. per lb.; other B.P. oils from 22s. to 120s. per lb. Ceylon leaf, 22s.; Seychelles from 9s. spot.

CITRONELLA. — Ceylon, spot, 5s. 9d.; shipment, 5s. 5d. per lb., c.i.f.; Formosan, 4s. 9d., in bond; shipment, 4s. 6d., c.i.f.; Chinese, spot, 4s. 9d. in bond; shipment, 4s. 6d., c.i.f.

CORIANDER. — From 34s. to 45s. per lb. spot, as to origin.

CUBE. — Spot supplies of imported are 86s. per lb.

CUMIN. — English distilled oil, 125s. per lb., imported 90s. to 105s.

DILL. — Imported is from 34s. to 39s. per lb., spot.

EUCALYPTUS. — B.P. 70-75 per cent., 5s. 9d. per lb.; 80-85 per cent., 6s. 3d.

FENNEL. — Spanish sweet, 16s. per lb., duty paid.

GRAPEFRUIT. — Spot offers from 8s. per lb.

JUNIPER. — B.P.C. is 32s. 6d. per lb. JUNIPER WOOD, from 6s.

LAVERDER SPIKE. — From 30s. to 40s. per lb. as to quality. Replacements quoted around 50s. per lb.

ORANGE. — Floridan sweet oil, 4s. 6d. to 5s. 9d. per lb.; Spanish, 16s.

PALMAROSA. — Shipment, 50s. per lb., c.i.f.; spot, 54s.

PATCHOULI. — Penang forward is nominally 62s. 6d. per lb., c.i.f.

PENNYROYAL. — Spot, 15s. per lb. duty paid.

PEPPERMINT. — *Arvensis*: Chinese for shipment, 11s. 3d., c.i.f.; spot, 11s. 6d. Brazilian for shipment, 11s. 6d., c.i.f.; spot, 11s. 6d. *Piperita*: Italian, 48s. to 60s., spot. American from 35s. per lb. as to make.

SAGE. — Spanish, 22s. 6d. per lb.; Da'matian, 26s.

SPEARMINT. — American oil on the spot, 35s. per lb.

TANGERINE. — Sicilian best quality about 46s. per lb.

VETIVERT. — Bourbon, spot, 85s. to 90s. per lb.

YLANG YLANG. — Best oil quoted about 135s.

UNITED STATES REPORT

NEW YORK, JUNE 15: BISMUTH salts were advanced along with the metal to make the SUB-CARBONATE \$5.90 a lb., up \$1.40, SUB-GALLATE \$5.66, up \$1.02, SUB-NITRATE \$5.0, up \$1.27: and SUB-SALICYLATE \$6.20, up \$1.25. BOIS DE ROSE OIL was up 25 cents at \$2.45. SPEARMINT moved up to \$4.75, a 25 cent gain, while PATCHOULI rose 50 cents to \$10.00. GRAPEFRUIT was lower at 60 cents, down five cents a lb.

PATENTS

COMPLETE SPECIFICATIONS ACCEPTED

From the "Official Journal (Patents)," May 19

Esters containing an alkylhydroxyphenyl group and stabilisation of organic material therewith. J. R. Geigy, A.G. 996,502.

Phosphorus compounds containing the 3,9-bis-(1-arizidinyl)-2,4,8,10 - tetraoxa - 3,9 - diphosphaspiro [5.5] undecane unit and process for preparing them. Olin Mathieson Chemical Corporation. 996,506.

Borates and borate containing detergent compositions. E. I. Du Pont de Nemours & Co. 996,526.

Photographic developing apparatus. A. W. Fiskens. 996,527.

Process for producing amino acids. Ajinomoto Co., Inc. 996,544.

Anti-perspirant and deodorant composition. J. G. Fiedler. 996,560.

Separation of 4:4'-bi-pyridyl from mixtures containing it. Imperial Chemical Industries, Ltd. 996,569.

Purification of bi-pyridyls. Imperial Chemical Industries, Ltd. 996,570.

Package containing a sterile surgical drape. Protective Treatment, Inc. 996,574.

Diagnostic x-ray units. Watson & Sons (Electro-Medical), Ltd. 996,637.

Process for hydrolysing alkoxy-silanes. Dow Corning Corporation. 996,646.

Closure device for containers filled with pastes or liquids. G. E. V. Benson. 996,651.

Dentifrice dispensers. R. S. Hamilton. 996,698.

N-Phenylpiperazine derivatives and processes for preparation. May & Baker, Ltd. 996,701.

N-Phenylpiperazine derivatives. May & Baker, Ltd. 996,702.

Thioctic acid. Yamanouchi Pharmaceutical Co., Ltd. 996,703.

Steroid thiazole compound and process for the production thereof. Chugai Seiyaku, K.K. 996,704.

Mycobacteriostatic biguanides and compositions containing them. Monsanto Chemicals, Ltd. 996,706.

Benzodioxan derivatives. Smith Kline & French Laboratories, Ltd. 996,708.

Preparation of 6-azacytidine. Institute Mikrobiologii im. Akad. D.K. Zabolotnogo. 996,736.

Organosilicon compositions. Dow Corning Corporation. 996,744.

Photographic developing composition. Gevaert Photo-Producten, N.V. 996,746.

Cine film cartridge. Technicolor Corporation of America. 996,758.

Production and projection of motion picture film. Instruments Corporation of America. 996,788.

Production of cycloalkanols and cycloalkanones. Halcon International, Inc. 996,792.

Compositions containing fatty acid amides. Abril Industrial Waxes, Ltd. 996,799.

Devices for reducing or increasing the temperature in containers. Insulex, Ltd. 996,813.

Medicament in solid form. CIBA, Ltd. 996,819.

Pesticidal and herbicidal compositions. Schering, A.G. 996,828.

Device comprising a pad for the dispensing of liquid and a container provided with such a device. Parfumeriefabrik Valdelis, N.V. 996,846.

Anion-exchange resins and their production. Permutit Co., Ltd. 996,871.

Film projectors. Eugen Bauer, G.m.b.H. 996,876.

Plastic glyceride fat and process for preparing it. Procter & Gamble Co. 996,892.

Production of glutamic acid and/or alpha-keto-glutaric acid. Distillers Co., Ltd. 996,906.

Boron-phosphorus compounds. Monsanto Co. 996,916.

Injection cartridge. Farbwerke Hoechst, A.G. 996,930.

Photographic developer compositions and solutions. Eastman Kodak Co. 997,000.

Thioxanthene derivatives. Sandoz Patents, Ltd. 997,011-12.

Process for sensitising photographic emulsions. Gevaert Photo-Producten, N.V. 997,031.

Pyrazolidinone derivatives. Ilford, Ltd. 997,033.

Acryloyloxyalkoxyarylsulphonic acids and salts thereof. Union carbide Corporation. 997,035.

9-substituted aridines. Wellcome Foundation, Ltd. 997,036.

Hydantoin derivatives. Imperial Chemical Industries, Ltd. 997,037.

Herbicide process and compositions. Monsanto Co. 997,038.

Polypeptide compounds. Chinoi Gyogyer es Vegyeszeti Termekek Gyara R. T. 997,039.

Process for preparation of neutral polyhydroxy-alkyl phosphates. Chemicals & Phosphates, Ltd. 997,040.

Derivatives of 1,5-dearylpyrrole-2-propionic acid. Parke, Davis & Co. 997,043.

Process for the upgrading of a bis-triazinylamino stilbene derivative. J. R. Geigy, A.G. 997,044.

Permanent waving of hair. Superma, Ltd. 997,092.

British patent specifications relating to the above will be obtainable (price 4s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from June 30.

From the "Official Journal (Patents)," May 26

Valuable product from montan resin and process for its manufacture. Farbwerke Hoechst, A.G. 997,148.

Process for the purification of 4,6-dimethyl-2-sulphanilamidopyrimidine. Ministerus Industriei Petrolului si Chimiei. 997,150.

Perforated photographic roll film. Agfa, A.G. 997,156.

Process for the production of herbicidal 2-methylthio-4,6-bis-amino-s-triazine. J. R. Geigy, A.G. 997,163.

N-phenylpiperazine derivatives. May & Baker, Ltd. 997,166.

Steroids and the manufacture thereof. Upjohn Co. 997,167-68.

Photographic process using cyanine dye bases. Horizons, Inc. 997,170.

[4 - (4,6 - Disubstituted-s-triazin - 2 - yl amino) - 4' - (4,6 - disubstituted-s-triazin - 2 - yl amino)] 2,2'-disulphostilbenes. Sterling Drug, Inc. 997,175.

w-hydroximinooalkanoic acids. Rhone-Poulenc, S.A. 997,177.

Process for the manufacture of novobiocin, dihydro-novobiocin and analogue antibiotics. F. Hoffmann-La Roche & Co., A.G. 997,179.

Calcium silicate product and method of preparing same. Johns-Manville Corporation. 997,202.

Process for the manufacture of peracetic acid. Wacker-Chemie, G.m.b.H. 997,284.

Cation exchange resins. S. Nakanishi. 997,290.

n-Alkyl-hydroxylamines. E. I. Du Pont de Nemours & Co. 997,300.

Process for preparing polynucleotides. Farbwerke Hoechst, A.G. 997,311.

Recovery of acrylic acid. Distillers Co., Ltd. 997,325.

Method of using gel coatings for chemical processing of photographic film strips. Panacolor, Inc. 997,329.

Method of separating and/or recovering arsenic. Empresa Nacional Calvo Sotelo de Combustibles Liquidos y Lubricantes. 997,331.

British patent specifications relating to the above will be obtainable (price 4s. 6d. each) from the Patent Office, 23 Southampton Buildings, Chancery Lane, London, W.C.2, from July 7.

TRADE MARKS

APPLICATIONS ADVERTISED BEFORE REGISTRATION

From the "Trade Marks Journal," May 19

For medicated bath essence (5)
SILMEER, 871,960, by S. Davies Pharmaceuticals Export Import, Ltd., Worthing, Sussex. [Corrected note.]

From the "Trade Marks Journal," May 26

For all goods (5)
CAL-FRESH, B865,991, by Britanol, Ltd., Leeds, Yorks. INGMIDON, 871,459, by C. H. Boehringer Sohn, Ingelheim on Rhine, Germany. IMMEDEX, 872,670, by Unilever, Ltd., Port Sunlight, Ches.

For microbicides for use in agriculture and horticulture (5)
HALOPHANE, 867,833, by Thames Service Kingston, Ltd., Worcester Park, Surrey.

For veterinary preparations for dogs and cats; and insecticidal preparations for use on dogs and cats (5)
DASON PRODUCTS, B869,772, by Day & Sons (Crewe), Ltd., Crewe, Ches.

For insecticides, pesticides and chemical pre-

parations for repelling birds and rodents (5)
URONIT, 869,785, by H. Stanly & Co., Ltd., Warlingham, Surrey.

For deodorants and antiperspirants (5)
KAM, B870,688, by Charles Coleman, Glasgow, C.4.

For preparations for destroying slugs (5)
SLUGENE, 870,724, by Stanly & Co., Ltd., Warlingham, Surrey.

For pharmaceutical preparations and substances for the treatment of vascular disorders of capillary origin (5)
FRAGIVIX, 870,768, by Société Belge de l'Azote et des Produits Chimiques du Marley, S.A., Liège, Belgium.

For pharmaceutical preparations and substances for human and veterinary use in ophthalmic surgery (5)
MIOCHOL, 872,652, by Smith, Miller & Patch, Ltd., London. E.C.1.

For insecticides, fungicides, herbicides, weedkilling preparations, and chemical preparations for desiccating or defoliating plants (5)
PREGLONE, 873,256, by Plant Protection, Ltd., London, S.W.1, and Yalding, Kent.

For pharmaceutical preparations for veterinary use (5)
SEPTODONT, 873,355, by Septodont, Paris, France.

For medicinal and pharmaceutical preparations (5)
RAU-SED, 873,971, by E. R. Squibb & Sons, Ltd., Twickenham, Middlesex.

For antibiotics, antibiotic preparations and preparations containing antibiotics (5)
TEROBIOTIC, 873,843, by Chas. Pfizer & Co., Inc., New York, U.S.A.

For pharmaceutical preparations (5)
KAMPYEN, 874,091, by Bristol-Myers Co., New York, U.S.A.

For veterinary preparations (5)
LANCOVAC, 874,616, by Eli Lilly & Co., Indianapolis, Indiana, U.S.A.

For safety razor blades (8)
PLAID, 875,938, by Perma-Sharp, Ltd., East Kilbride, Scotland.

For photographic apparatus and parts and fittings (9)
KOROLL, 875,132, by Boots Pure Drug Co., Ltd., Nottingham.

For electric blankets and parts (10)
SOMBRERO, 874,698, by Sutcliffe & Clarkson, Ltd., Burnley, Lancs.

For toilet sets (sold complete) comprising a hairbrush and comb, a clothes brush and a hand mirror; toilet brushes, hairbrushes, combs, powder bowls and toilet trays (21)
ARISTON, 862,830, by D. Harris & Co., Ltd., London, W.1.

For domestic containers and utensils being transparent and made from polycarbonate or styrene acrylonitrile material (21)
INSULEX CRYSTALITE, 862,988, by Insulex, Ltd., London, W.2.

For small domestic utensils and containers (not of precious metals or coated therewith); combs and sponges; brushes, etc. (21)
GONKS, 866,867, by Gonks, Ltd., London, W.1.

From the "Trade Marks Journal," June 2

For diagnostic preparations (not for internal use) for the analysis of body fluids (1)
DEXTRASTIX, 863,562, by Ames Co., Inc., Elkhart, Indiana, U.S.A.

For sensitised paper (photographic) for use in copying processes (1)
LUXOTHERM, B864,899, by W. Koreska, Vienna, Austria.

For chemical products for use in industry; chemical products for use in agriculture, horticulture, forestry and fire fighting; fire extinguishing compositions (1)
GELGARD, 870,473, by Dow Chemical Co., Midland, Michigan, U.S.A.

For all goods (1) and (5)
GESARAN, 872,354-55, by J. R. Geigy, A.G., Basle, Switzerland.

For all goods (3)
APHRODISIA, B854,689, by Faberge, Inc., New York, U.S.A.

For non-medicated toilet preparations containing sulphur, for use on the hair to inhibit dandruff (3)
SULPH-N-CRIN, 859,280, by Nichol Beauty Products, Ltd., London, W.1, and London, N.14.

NOTES ON NEW MEDICAMENTS

ACTRAPID AND RAPITARD.—Since the discovery of insulin, much attention has been paid to the problems of prolonging its action in order to lessen the burden of the diabetic life by reducing the frequency of injections. Less work has been done on the reverse problem of increasing the rapidity of action, probably because the need for speed, such as occurs in the treatment of diabetic acidosis and coma, is met less frequently. The elucidation of the chemical structure of insulin has shown that certain differences exist between the amino-acid groups of insulins from various animals, and that rapidity of action is associated with solubility at a neutral pH. In chemical composition, pork insulin approaches that of human insulin very closely, the only difference being that the terminal amino-acid of the β -chain of pig insulin is alanine, whereas in human insulin that terminal acid is threonine. With purified pork insulin, a clear colourless solution can be prepared that is neutral in reaction and is absorbed more rapidly than solutions of standard soluble insulin. This rapid-acting pork insulin is available as Insulin Novo Actrapid and is present

in Insulin Novo Rapitard. The latter is a suspension of long-acting beef insulin crystals in a neutral solution of pork insulin. The beef insulin crystals are of a constant shape and size and this uniformity is an essential factor in the preparation of a long-acting insulin with a predictable and consistent effect. Long action is also influenced by the insolubility of beef insulin at a neutral pH. The activity of each constituent of Rapitard is independent of the other, so that the mixture has the initial rapid action of Actrapid, which is sustained for some twenty to twenty-two hours by the beef insulin constituent. The product represents a successful attempt to devise a rapid yet prolonged acting insulin without the addition of foreign substances. Although the product was developed as a twice daily injection, the action is frequently long enough for some patients to be stabilised on a single daily injection. The explanation for that is not clear but it may be that the powerful initial effect of the drug may have some stabilising action on the blood sugar level, which is sustained until next injection.

PRINT AND PUBLICITY

PRESS ADVERTISING

CONTINENTAL COSMETICS, LTD. (distributors), 88 Fonthill Road, London, N.4: Jordan tooth-brushes. In *Readers Digest*, *Housewife*, *Woman*, *Woman and Home*, *T.V. World*, *Weekend Telegraph*, *Sunday Times Magazine* and *Woman's Own*. Belle Color hair colourant. In *Woman* and *Woman's Own*.

CUXSON, GERRARD & CO., LTD., Oldbury, Birmingham: Carnation corn caps. In mass circulation newspapers and magazines.

CYANAMID OF GREAT BRITAIN, LTD., Breck Department, Bush House, Aldwych, London, W.C.2: Breck hair care products. In *Woman*, *Woman's Mirror*, *She*, *Flair*, *Vanity Fair* and *Honey*.

ELIOA, LTD., 43 Portman Square, London, W.1: Sea Witch hair colourant. In women's magazines.

PUBLICATIONS

Medical Propaganda

Manufacturers' leaflets, folders, booklets, etc., directed to doctors but available to pharmacists. **BENGER LABORATORIES**, Division of Fisons Pharmaceuticals, Ltd., Loughborough, Leics: "Lomodem" (card).

BOOTS PURE DRUG CO., LTD., Station Street, Nottingham: "For the symptomatic relief of haemorrhoids . . . Anodesyn" (4-p. folder).

CIBA LABORATORIES, LTD., Horsham, Sussex: "Locorten" (12-p. booklet), "Doriden . . . overtone to sound sleep" (8-p. booklet).

EVANS MEDICAL, LTD., Speke, Liverpool 24: "Insulin Novo Rapitard and Insulin Novo Actrapid" (19-p. booklet).

GEIGY PHARMACEUTICAL CO., LTD., Manchester 23: Guide to therapy (information on Hygrotin, Insidon and Parazolidin, with a therapeutic classification of the company's products; pp. 8).

MAY & BAKER, LTD., Dagenham, Essex: "Val-

lergan . . . breaks the itch-scratch-itch cycle orally" (4-p. folder). "Phenergan tonight will prevent hay-fever tomorrow" (4-p. folder).

MERCK SHARP & DOHME, LTD., Hoddesdon, Herts: "Aldomet . . . a more normal life for the hypertensive patient" (4-p. folder). "Twelve indications for Hydroderm" (4-p. folder). "Aldomet . . . clear advantages over other forms of therapy" (4-p. folder). "Indocid" (card). "However depression presents . . . Tryptizol" (4-p. folder).

ROCHE PRODUCTS, LTD., 15 Manchester Square, London, W.1: "Valium . . . offers a new approach to psychotherapeutic regimens" (4-p. folder). "Noludar 300 . . . for quicker sleep" (card). "Becosym . . . to speed recovery" (card). "Aspects of Anxiety," No. 5: Anxiety and Obesity. No. 6: Anxiety and Man's Sensitive Stomach. No. 7: The Lypochondriac. No. 8: Anxiety and the Heart. (12-p. booklets).

CASH FOR DISPLAY:

An attractive new show-card for Quick Kwells carrying a "holiday message," available from Nicholas Products, Ltd., 225 Bath Road, Slough, Bucks. Pharmacists displaying the card (and similarly one for Femimax) will be eligible for £5 cash awards from the Nicholas "mysteryshopper" who is touring Britain during the period June to September.



LOMODEX.—A low molecular weight form of dextran prepared for intravenous injection. Dextran are polysaccharides used as blood volume expanders and are obtained by the fermentation of sucrose solutions by certain bacteria, chiefly *Leuconostoc mesenteroides*. When thus produced, the polysaccharide has a molecular weight of about 40,000,000, but by partial acid hydrolysis and fractionation, lower molecular weight products can be obtained. In England, fractions of dextran with an average molecular weight of about 150,000 are used though in Sweden and the United States, fractions with about half that molecular weight are preferred. Fractions with much higher molecular weights may be retained in the body too long, or become stored in various organs and produce antigenic reactions. Conversely, lower molecular weight fractions may be eliminated too rapidly. Fractions of about 40,000 M.W., have an unusual value in that they can maintain the suspension stability of the blood cells. Stability is normally maintained by a balance between the high and low molecular weight colloids of the blood, but after tissue damage that balance may be disturbed, leading to intravascular sedimentation or "sludging" of the erythrocytes. Such sludging reduces the efficiency of the circulation, particularly in damaged tissues but may be prevented, or reversed, by the slow intravenous injection of low molecular weight products such as Lomodem. Lomodem is retained in the body for a much shorter time than the blood standard dextran blood volume expanders, because many of the molecules are below the renal threshold for dextran in size. At the same time, care must be taken not to overload the circulation by the administration of large volumes of the drug at too fast a rate.

COMING EVENTS

Items for inclusion under this heading should be sent in time to reach the Editor not later than first post on Wednesday of the week of insertion.

Wednesday, June 23

BOURNEMOUTH BRANCH, PHARMACEUTICAL SOCIETY, Cornelia nurses hostel, Poole, at 1 p.m. "Recurrent Fevers."

EAST KENT AND FOLKESTONE BRANCHES, PHARMACEUTICAL SOCIETY, Elham Square, Elham, Canterbury, at 7 p.m. Treasure hunt.

SOMERSET COUNTY BRANCH, PHARMACEUTICAL SOCIETY, and **SOMERSET BRANCH, BRITISH MEDICAL ASSOCIATION**, Castle hotel, Taunton, at 8 p.m. Mr. G. Teeling-Smith (director, Office of Health Economics) on "Controversial Thoughts."

Thursday, June 24

CHESTER BRANCH, PHARMACEUTICAL SOCIETY, Blossoms hotel, Chester, at 8 p.m. Meeting to discuss action to be taken regarding the special meeting being held by the Society on July 25.

FEDERATION OF SOUTH-EASTERN PHARMACISTS, White Hart hotel, Lewes, at 8.15 p.m. Mr. J. Charlton (superintendent, Central Checking Bureau) on "Pricing Your E.C.10's—Basis, Procedure and Problems."

LEICESTER AND LEICESTERSHIRE BRANCH, PHARMACEUTICAL SOCIETY, car park, Welford Road, Leicester, at 7 p.m. Treasure hunt.

Sunday, June 27

MANCHESTER AND SALFORD AND STOCKPORT BRANCHES, PHARMACEUTICAL SOCIETY, Lesser Free Trade hall, at 3 p.m. Meeting to discuss the special meeting being held by the Society on July 25.

PETERBOROUGH BRANCH, PHARMACEUTICAL SOCIETY, Bishop's Road bus station, Peterborough, at 9.30 a.m. Outing to Luton Hoo.

Exhibitions and Fairs

KODAK, LTD., Kodak House, Kingsway, London, W.C.2 (prior to showing in provinces). "Britain in View" exhibition of photographs showing coast and countryside. In association with the National Trust "Enterprise Neptune" appeal. Admission free, Daily, 9.30 a.m. to 5 p.m. June 23 to July 7 (Saturdays and Sundays excepted).

Two of the 1965-range of Dreamland electric blankets by Dreamland Electrical Appliances, Ltd., 30 High Street, Southampton, with their boxes showing the Mother and Child design. The Family and Galaxy models represent the company's entry into the low-priced blanket market.





What doctors are reading about developments in drugs and treatments

COMBINED treatment with the sulphonylurea, chlorpropamide, and the diguanide, metformin, has been found effective in controlling diabetes in many patients in whom control with the sulphonylurea alone had failed. Workers at the Royal Infirmary, Edinburgh, report that in a trial on 108 diabetics who had become true sulphonylurea-failures, 13 per cent. of patients aged less than forty-one years, 58 per cent. of those aged forty-one to sixty, and 68 per cent. of older patients, were adequately controlled at the end of an eighteen-month period. Although transient gastro-intestinal side effects due to metformin were encountered in 56 per cent. of patients, only 3 per cent. were forced to discontinue treatment for that reason. To test whether chlorpropamide was having any therapeutic effect, it was discontinued in twenty-seven patients aged over forty who were being successfully controlled with combined therapy. In each case regulation was lost but was regained in twenty-four of the patients when chlorpropamide was re-introduced. The authors postulate that the two drugs act synergistically, the sulphonyl-

urea to augment release and plasma activity of insulin, and the diguanide to potentiate its effect on the tissues. The fact that neither drug is by itself effective accords with that view, they state. (*Lancet*, June 12, p. 1248.)

A CASE of fatal reaction to phenelzine, possibly spontaneous, but in which the precipitating factor may have been alcohol is reported from Newcastle General Hospital, Newcastle-on-Tyne. Most features of the "cheese reaction" type of response to monoamine-oxidase inhibitors are stated to have been present. (*B.M.J.*, June 12, p. 1554.)

THAT corn oil cannot be recommended as a treatment of ischaemic heart disease, it is most unlikely to be beneficial, and it is possibly harmful, is the conclusion drawn by a group of workers from St. Mary's Hospital, London, High Wycombe Group Hospitals, and Crumshall Hospital, Manchester, following a two-year trial on eighty patients. Patients with established ischaemic heart disease were randomly allocated to three groups: (1) control, (2) olive oil supplemented diet with restriction of animal fats (to eliminate

the possibility of secondary effects due to causes other than cholesterol-lowering effect of unsaturated fatty acids), (3) corn oil supplement with restriction of animal fats. At the end of two years, patients remaining alive with no reinfarction (fatal or non-fatal) in the three groups were, respectively, 75 per cent., 57 per cent. and 52 per cent. of the numbers entering the trial. Conventional treatments were given during the trial at the discretion of the physician. (*B.M.J.*, June 12, p. 1531.)

CONTEMPORARY THEMES

Subjects of contributions in current medical and technical periodicals.

- ACUTE LEUKEMIA, New drugs in the control of. *Amer. J. Pharm.*, January.
- TAMPONS in menstrual hygiene. *J. Amer. med. Ass.*, May 24.
- ANESTHESIA and the full stomach. *J. Amer. med. Ass.*, May 24.
- BUSULFAN in pregnancy. *J. Amer. med. Ass.*, May 24.
- SALICYLATE POISONING. *J. Amer. med. Ass.*, May 31.
- A RADIO-ENZYMATIC ASSAY for folic acid. *Nature*, June 12.
- THIABENDAZOLE, Continuous low-level feeding of, to control, helminthiasis in lambs. *Vet Rec.*, June 12.
- CORN OIL in treatment of ischaemic heart disease. *Brit. med. J.*, June 12.
- ENTERIC-COATED BARBITURATE GRANULES, Determination of the emptying-time of the stomach by use of. *Brit. med. J.*, June 12.
- MILTON HYPOCHLORITE SOLUTION, Experimental irrigation of subcutaneous wounds and peritoneal cavity with, after inoculation with cancer cells. *Lancet*, June 12.
- PENICILLIN, Do unconscious poisoned patients need prophylactic penicillin. *Lancet*, June 12.

COMMERCIAL TELEVISION

The information given in the table is of number of appearances and total screen time in seconds. Thus 7/105 means that the advertiser's announcement will, during the week covered, be screened seven times and for a total of 105 seconds.

June 27-July 3	London	Midland	North	Scotland	Wales & West	South	North-east	Anglia	Ulster	Westward	Border	Grampian	Eireann	Channel Is.
PRODUCT														
4711 ...	1/15	1/15	2/30	2/30	1/15	2/30	2/30	3/45	2/30	—	—	—	—	—
Alka-Seltzer ...	7/141	6/134	4/120	6/111	5/150	8/171	8/194	3/120	8/171	5/104	7/141	6/111	7/141	6/111
Anadin ...	8/115	4/74	4/74	7/174	7/95	4/120	3/90	3/100	2/60	1/30	1/30	5/58	—	1/30
Anne French cleansing milk	—	—	1/30	1/30	—	1/30	—	—	—	—	—	—	—	—
Askit powders ...	—	—	—	12/84	—	—	—	—	—	—	3/21	4/28	—	—
Bisodol ...	—	—	—	—	—	—	—	—	—	—	—	3/21	—	—
Bunty baby products ...	—	—	—	—	—	—	—	—	2/30	—	—	—	—	—
Bien-être splash Cologne ...	2/30	—	—	—	—	—	—	—	—	—	—	—	—	—
Bodyfresh ...	—	—	—	—	5/150	—	—	—	—	—	—	—	—	—
Clinic shampoo ...	4/120	2/60	6/180	3/90	6/180	5/150	3/90	4/120	4/120	3/90	3/90	6/180	—	7/21
Dentu-creme ...	2/60	2/60	1/30	1/30	1/30	1/30	1/30	1/30	1/30	1/30	1/30	2/60	—	1/30
Dettol ...	4/66	2/62	1/45	2/52	—	3/59	3/21	2/14	3/21	1/7	—	—	—	1/45
Freezone ...	2/60	3/67	2/60	1/30	—	—	1/30	—	—	—	—	—	—	—
Fresh-air ...	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21	3/21
Granose slimming rolls ...	—	—	—	—	2/10	—	—	5/90	—	—	—	—	—	—
Immac ...	2/60	1/30	3/90	1/30	1/30	1/30	1/30	2/70	3/90	1/30	2/60	1/30	—	2/60
Lemon Nulon ...	—	—	—	—	—	—	—	1/30	—	—	—	—	—	—
Loxene shampoo ...	4/30	1/30	1/30	1/30	1/30	1/30	2/30	1/30	1/30	1/30	1/30	1/30	3/30	—
Mum Rollette ...	2/45	2/45	2/45	2/45	1/30	2/30	2/45	2/45	2/45	2/45	—	3/60	—	—
Nair ...	2/60	2/60	—	—	—	2/60	2/60	2/60	—	2/60	—	—	—	2/60
New Quick Kwells ...	3/45	—	—	3/45	4/60	—	—	4/60	—	3/45	—	—	—	2/30
Polaroid colour pack camera	2/75	2/75	2/75	—	2/75	—	—	—	2/75	—	—	—	—	—
Radox ...	3/90	3/90	3/90	3/90	3/90	4/120	3/90	3/90	—	3/90	—	—	—	—
Rennies ...	—	2/60	2/60	1/30	4/120	3/90	2/60	3/90	—	1/30	—	—	—	3/90
Right Guard ...	2/60	4/120	4/120	4/120	5/150	4/120	3/90	4/120	4/120	4/120	4/120	4/120	—	—
SR tooth-paste ...	2/60	1/30	—	1/30	3/90	2/60	3/90	1/30	1/30	3/90	2/60	1/30	—	3/90
Scholl foot exercise sandals	1/45	—	2/90	—	—	1/45	—	—	—	—	—	—	—	—
Signal tooth-paste ...	3/90	2/60	3/90	4/120	4/120	4/120	4/120	2/60	5/150	—	4/120	1/30	—	5/150
Sona bath additive ...	—	—	—	—	—	3/90	—	—	—	—	—	—	—	—
Spanish olive oil ...	2/80	—	—	—	—	—	—	—	—	—	—	—	—	—
Steradent ...	—	—	2/60	1/30	—	—	1/30	1/30	1/30	—	1/30	1/30	—	1/30
Stera-fix ...	—	2/30	—	—	—	—	—	—	—	—	—	—	—	—
Vitalis ...	—	2/52	—	—	—	—	—	—	—	—	—	—	—	—
Wrights coal tar soap ...	1/15	1/15	—	1/15	1/15	—	—	1/15	—	—	1/15	—	—	—

Cumulative price changes

AMENDING C & D
QUARTERLY PRICE LIST
FOR JUNE 1965

bottle (821 McGlashan)				28 x 28in (12)				25 4ea				33 9				QL				—				959 6											
powder single				36 0 9 0 5				30 x 30in (12)				30 4ea				40 5				case				—				79 6							
(1 gross)				(1 gross)				terry squares				24 x 24in (12)				31 2ea				41 7				camera cine				—				999 6			
double				54 0 13 6 7				(1 gross)				(1 gross)								case				—				79 6							
Actrapid (436 Evans) ts7								Band-Aid (672 Johnson)				strip dressing				2 1/2 x 6in				4 3				—				6							
insulin 40 units/ml				10mils 43 11 — 4 10				D				Betalin Complex (413 Lilly)				Belze (110B) tablets																			
80 units/ml				10mils 84 9 — 9 5				D				Bell & Howell (1027 Rank)				cine camera 8mm				Autocost 11 390 — 399 0															
negative film CN17 universal				35mm standard cassette								Betadine (117 BPL) antiseptic solution				aerosol spray				100 mls 17 8ea 4 5ea 30 11															
12 exp — 6 3				20 exp — 7 9								Bi-Citrol (1336 WJ&C)				granules				80 0 20 0 11 8															
Rapid cassette — 6 9												Bien-etre (1 Abbey)				splash Cologne				1 litre 51 0 12 9 7 6															
roll film				127, 120, 620 — — 6 6																															
existing CN17 film																																			
Antilope (Weil (960 ADP))				foam bath 16 0ea 3 11ea 30 0																															
parfum de toilette				2oz 21 0ea 5 1 1/2ea 37 6																															
				4oz 31 6ea 7 8ea 56 0																															
				8oz 50 0ea 12 2ea 91 0																															
diffusette				2oz 23 6ea 5 9ea 42 0																															
				3 1/2oz 33 9ea 8 3ea 59 6																															
Secret de Venus bath oil				bobines 12 66 0ea 16 1ea 120 0																															
				1 5 6ea 1 4ea 10 0																															
				1oz 15 3ea 3 9ea 27 6																															
				1oz 26 0ea 6 4ea 46 6																															
				1oz 46 9ea 11 5ea 82 6																															
				2oz 84 6ea 20 7ea 147 6																															
				4oz 158 6ea 38 8ea 277 6																															
A.P.P. (291 Consolidated) ts1s4A				stomach powder 100 gm 60 0 15 0 —																															
				tablets 50 45 0 11 0 —																															
				250 15 0ea 3 9ea —																															
Approgen (34 A & H)				ampoules 2 mls 5 22 0 — 2 9																															
				100 26 0ea — 39 0																															
				5 mls 5 26 0 — 3 3																															
				100 31 0ea — 46 6																															
				10 mls 5 48 0 — 6 0																															
				100 55 0ea — 82 6																															
Aquacell (1553 Contactasol)				contact lens carrying case																															
Aqua-Net (1092 Saga) existing entry				Aqua-Net (1524 Chembro)																															
				hair spray 6 1/2oz 38 0 9 6 5 6																															
				aerosol 13oz 61 3 15 4 8 9																															
				18oz 76 6 19 1 10 9																															
				12oz 0 3 0 1 9																															
sachet refill 12 0 — —																																			
Asilone (117 BPL)				paediatric sachets (25) 4 6ea 1 1 1/2ea 7 10 1/2																															
Atomol (34 A & H)				nasal spray 30 0 — 3 9																															
Atrix (1164 55L)				hand care tin 409 106 2 26 0 15 6																															
Ayrton (78 A58 Co)				cream of calamine with benzocaine 4oz 18 0 4 6 2 6																															
				Sundries																															
				bathroom scales "Prestige" 31 0ea 3 0ea 49 6																															
Baby Life (1499 BLP)				baby squares muslin (12) 24 x 24in 18 6ea — 24 9																															
				(6) 9 6ea — 12 11																															
				terry popular (12) 24 x 24in 23 6ea — 30 9																															
				(6) 12 0ea — 16 0																															
				standard (12) (6) 30 3ea — 40 6																															
				15 6ea — 21 0																															
				baby teats 5 6 — 8																															
Babytown (1554 AC&S)				fluffy puffs 10 11 — 1 4																															
				muslin squares 24 x 24in (12) 20 4ea 27 1																															

when prescriptions call for INSULINS, supply

WELLCOME brand

• SOLUBLE • LENTE • PROTAMINE ZINC • GLOBIN



BURROUGHS WELLCOME & CO. (The Wellcome Foundation Ltd.) LONDON

Contactasol (1553 Contactasol)					Eucryl (430 Eucryl)					D Cologne spray, dusting powder, perfume				
contact lens					denture powder					spray, shampoo				
wetting solution					tooth powder					D Fleches (726 Lancome)				
10cc 24 0					smokers					D Fleches d'Or (726 Lancome) existing entries				
50cc 84 0					Evanol (432 Evanol)					Fleches d'Or (726 Lancome)				
D	Corvette (1534 Corvette) existing range				brighteners†					eaux parfumees 6531				
	Corvette (1534 Corvette)									6532				
	after shave				1oz 24 0					6533				
	hair cream				2oz 40 0					perfume				
	pre-electric				10oz 12 0					gold-and-white decor				
	shave				20oz 21 0					debutante 65129				
	shaving bowl				hair dye					handbag size 6519				
	refill				remover					1/2oz 6518				
	shaving cream				oil bleach					1/2oz 6511				
	lather				Simplex hair					1/2oz 6512				
	brushless				dyes†					2oz 6513				
	shaving stick				Evaset (437 EW)					3 1/2oz 6514				
	refill				setting lotion					Frazene (731 Langford)				
	talcum				Executive (845 GM) electric shavers					bath salts large				
D	Crystodigin (413 Lilly)				Eminent					Fraicheur (Weil (960 ADP))				
	tablets 0.2mgm				Oxford ladies					foam bath				
	Culmak (332 Culmak) shaving brushes				Eyecler (1553 Contactasol)					Frescabel (726 Lancome)				
	Prince				eye drops					cream				
	Cussons (388 Cussons)				Eyessoth (1553 Contactasol)					222				
	Fascination talc 4721				eye lotion					223				
	Cuticura (993 PD&C)				D Fabulo (554 Haetam) existing entries					tube				
	(distributors 885 N&P)				Fabulo (554 Haetam)					223T				
D	soap				combs nylon					Frozolone (365 Demuth)				
	Dabitoff (430 Eucryl)				dressing 8in					(distributors)				
	Dapsodine (358 D&S)				pocket					1054 R&A				
	intramammary				Sin					Frozolavender (365 Demuth)				
	syringes				3 1/2in					(distributors)				
	tubes				8 1/2in ordinary					1054 R&A				
	Daptamycin (894 Nicholas) TS				8 1/2in with ball points					Furan (1515 CD)				
	capsules				7 1/2in double sided					tablets 50mgm SO				
	Dayfur M (358 D&S)				combs styling					23 0ea				
	intramammary				all purpose					250 45 0ea				
	syringes				brush & tail					100mgm SO 43 0ea				
	tubes				combined mirror,					250 88 9ea				
	Day's (358 D&S)				brush & tail					Galloways (430 Eucryl)				
	black drink				hair rollers					cough syrup				
	Drifford oils				bouffant					lung syrup				
	etheric				No. 0					25 8				
	ammonia				No. 00					15 0				
	red drink				No. 1					23 4				
	white oils				No. 2					S 10				
	Dequadin (34 A&H)				No. 3					Gem (365 Demuth) (distributors 1054 R&A)				
	cream				No. 2/T					dry shampoo				
	ear drops				No. 4/T					20 0				
	tulle				No. premium					5 0				
	Dequalone (34 A&H) lotion				new style					Germaine Monteil (1486 GM)				
	Dequalone P (34 A&H)				medium					Idol-Eyes				
	paint 0.5% 28 mils				large					cake eye				
	Docteur Pierre's (1407 Jaccac)				ex. large					shadow compact				
	toothpaste				hair brush					dual bias brush				
	toothpick quill				plastic ladies					Super-Clean				
	Dop (525 Golden)				nail brush					facial brush				
	shampoo				soap boxes					Germoloids 104 BP)				
	Dylon (816 Maybourn)				medium					large				
	dry bleach sachet				large					Goya (532 Goya)				
	(6 doz)				Ferfolic (17 Agprolin)					deodorant				
	Dyspne (1336 WJ&C)				tablets					spray puffer				
	inhaler				100 6 0ea					Golden Girl				
	Eau de Fraicheur (Weil (960 ADP))				250 14 0ea					beauty puff				
	toilet water				500 26 0ea					cocktail				
	Elnett Satin (525 Golden)				1000 50 0ea					compact				
	Enteromide (291 Consolidated) ts4B				D Ferlutite with folic acid (17 Agprolin)					98 30 11				
	tablets				Ferrania (1017 Pullin)					perfume				
	D Envol (726 Lancome) existing entries				Ferrania (1500 MM&M)					miniature				
	Envol (726 Lancome)				cine film 8mm					4 41 3				
	eaux parfumees				reversal 25ft.					stick Cologne				
	6431				16mm 30metres					Halidrate (413 Lilly)				
	6432				(36 exp.)					tablets 1mgm				
	6433				35mm cassette					Halina (1136 Silber) existing entries				
	perfume				(36 exp.)					Halina (1136 Silber)				
	gold-and-white decor				reload					cameras A.1				
	debutante				roll film 127					case				
	handbag				120, 620					6-4				
	size				D Ferranicol (1017 Pullin)					case				
	1/2oz				Ferranicol (1500 MM&M)					35X				
	1oz				cine film 8mm					case				
	2oz				reversal 25ft.					Paulette				
	3 1/2oz				16mm 30metres					case				
	perfume				35mm cassette					Rolls				
	atomiser				(36 exp.)					case				
	refill				reload					Simplette F				
	skin perfume				roll film 127					case				
	atomiser				120, 620					Viceroy				
	refill				Dia 28 film					case (salpa)				
	6497				35mm cassette					(canvas)				
	6498				(36 exp.)					Halinamat (1136 Silber)				
	6499				(20 exp.)					projector 300				
					reload					Handjoy (485 Fulford)				
					roll film 127					hand cleanser				
					120, 620					dispenser				
					Dia 28 film					17 0				
					35mm cassette					existing pack				
					(36 exp.)					D Helena Rubinstein (S96 HR)				
					(20 exp.)					eyeliner pencil				
					roll film 127					fashion brow				
					120, 620					Heudeberts (794 MNF)				
					Dia 28 film					8iscottes				
					35mm cassette					11 3				
					(36 exp.)					27 0				
					(20 exp.)					11 3				
					roll film 127					27 0				
					120, 620					25 6				
					Dia 28 film					D Symbred large				
					35mm cassette					Symbred small				
					(36 exp.)					Hi-Glo (437 EW)				
					(20 exp.)					hair spray				
					roll film 127					6oz 31 0				
					120, 620					Hosezene (62S Hosezene) sanitary towels				
					cut sheets					cotton size 0				
					S x 4in					23 5				
					Ferrocap (291 Consolidated)					1 25 9				
					capsules					2 30 5				
					200 45 0ea					3 38 6				
					Fields (462 Field)					4 42 2				
					French Flowers					S 46 10				
					Cologne spray, dusting powder, perfume					Huskolein (358 D&S)				
					spray, shampoo					20oz 120 0				
					French Pink					26oz				
					dusting powder, shampoo					D Ilford (64S Ilford) cameras				
					French Moss					Sprite 35				
										Sprite 127 kit				
										32 10ea				
										21 Sea				
										8 2 1/2ea				
										S 4ea				
										57 6				
										37 6				

C116	32	10	6	7	—	Nivea (1164 SSL)	translucent	50	6	12	7 1/2	7	6
C117	43	5	8	8	—	creme tube	364	14	4	3	6	2	1
C118	43	5	8	8	—	jar	384	48	0	11	9	7	0
C119	90	0	18	0	—		366	36	0	8	10	5	3
C122	45	0	9	0	—	family pack	370a	89	1	21	10	13	0
C123	45	0	9	0	—	shaving cream	280	19	11	4	10	2	11
decorated nets	58,60,62	18	0	1	8	Nori (1407 Jaccz)							
human hair nets						midjet travelling							
bun ordinary shades	02	37	6	3	6	douche	28	0ea	—	42	0		
white and grey	75	0	gross	7	0	Oil of the Night (358 D&S)							
human hair cap	gross	gross	gross	gross	gross	(home)	20oz	116	4	34	0	17	0
ordinary shades	15,2D,35,4D,SS,6D	37	6	3	6	(vet.)	20oz	116	4	34	0	17	0
white and grey	gross	gross	gross	gross	gross	3oz & 26oz							
nylon 10in	gross	gross	gross	gross	gross	Olbas (65 Ashley)							
SOC,SOD	32	0	3	0	—	oil	108	0	20	0	12	0	
I22C,I22D	31	6	2	0	—	pocket inhaler	66	0	12	0	7	0	
51C,51D	30	9	2	10 1/2	—	Old Spice (1131 Shulton)							
setting and slumber	gross	gross	gross	gross	gross	aerosol							
29C,29D,88C,88D	40	0	3	9	—	deodorant	3872	62	0	15	1	9	6
99D	gross	gross	gross	gross	gross	hair cream							
silk 10in 28C,28D	33	4	3	1 1/2	—	tube	3042	31	0	7	7	4	9
triangular art silk	gross	gross	gross	gross	gross	Opas (1335 Wigglesworth)							
nylon	2258	16	6	1	8	powder	8	3	1	11	1	4	
fine nylon	85	23	6	2	2		14	3	3	4	2	3	
Mazda (12 AEI)						tablets	10	0	2	4	1	6	
flash bulbs capless	No. 1	—	—	—	9		16	9	3	10	2	6	
Mecablitz (1136 Silber) existing entries						Oxymycin (1515 CD) TS							
Mecablitz (1136 Silber)	flashgun III	—	—	—	231	2							
	115	—	—	—	445	5							
	116	—	—	—	322	2							
	117	—	—	—	380	8							
	118	—	—	—	464	8							
	S02 with	—	—	—	1171	3							
	6 volt acc. N/C	—	—	—	988	2							
	wet	—	—	—	—	—							
Mecamains (1136 Silber)	flashgun	—	—	—	397	9							
Mecatwin (1136 Silber)	flashgun	—	—	—	394	9							
	S02	—	—	—	—	—							
	500	—	—	—	—	—							
Mellavax (208 BW) VPO	vaccine (vet.)	—	—	—	—	—							
	5 dose	20	7 1/2	—	27	6							
	25 dose	87	6ea	—	116	8							
Mercury (667 JCL)	A.G. flash	—	—	—	68	6							
	unit	JN34	—	—	—	—							
Merthiolate (413 Lilly)	suppositories (vaginal)	—	—	—	—	—							
Minamino (291 Consolidated)	compound	—	—	—	—	—							

hair tonic	36 5	9 1	2 6
(2 doz)	(2 doz)		
petroleum jelly	27 4	6 10	3 9
yellow jar	18 9	4 8	2 6
white	20 8	5 2	2 9
shampoo cream	37 6	9 4½	5 0
sachet	16 5	4 2	9
medicated sachet	16 5	4 2	9
Metaplasme Langlebert (1336 WJ&C)	66 0	16 6	9 8
A-Cil-K (413 Lilly) T5			
Pedipacs 125mg sachet	12 4	4ea	— 6 6
	144 50	0ea	— 75 0
Wander (1303 Wander)			
diabetic canned			
fruits	8oz 18 0	—	2 0
Vatalux (980 Photopia)			
flash unit	W15	—	— 36 11
X2	W63	—	— 58 6

Watersprite (1160 Solport)			
face cloth	G296 17 6	—	2 3
	G295 18 0	—	2 3
	G300E 18 6	—	2 3
Wellcome (208 BVV)			
fowl pest vaccine			
50mils	63 0	—	7 0
250mils	25 6ea	—	34 0
500mils	49 6ea	—	66 0
Wonder Set (1531 W5)			
large	40 6	9 7½	5 6
old size			

176 BLO=British Cod Liver Oils (Hull and Grimsby), Ltd., Marfleet, Hull, Yorks. Hull 75234
 451 F&J=Fassett, & Johnson, Ltd., Oxford Works, Worsley Bridge Road, London, S.E.26. Beckenham 5007.
 748 L&F=Lehn & Fink Products, Ltd., 21 Conduit Street, London, W.1. Mayfair 7397.
 843 ML=Miles Laboratories, Ltd., Stoke Court, Stoke Poges, Bucks. Farnham Common 2151.
 887 New Era=New Era Laboratories, Ltd., 87 Saffron Hill, London, E.C.1. Chancery 1481.
 1500 MM&M=Minnesota Mining & Manufacturing Co., Ltd., 3M House, Wigmore Street, London, W.1. Hunter 5522.
 1553 Contactasol=Contactasol, Ltd., 70 New Bond Street, London, W.1. Hyde Park 1911.
 1554 AC&S=Alexander Carus & Sons, Ltd., Hoddlesden Mills, Darwen, Lancs., Darwen 1383.
 1555 Corsetric=Corsetric, Ltd., 6 Cadogan Lane, London, S.W.1. Belgravia 8306.

AMENDMENTS TO KEY TO SUPPLIERS

29 Alfonal = Alfonal, Ltd., Church Road, Worcester Park, Surrey. Derwent 3877.
 135 TB=Thomas Blake & Co. 20 Blatchford Close, Horsham, Sussex.

THIS WEEK'S CHANGES

Prices are given in the sequence: Trade price per doz./purchase tax per doz./retail price (bold if maintained), thus:—17s 11d/4s 3d/2s 3d. A dash — in any column indicates that the manufacturer has provided no figure appropriate to that column.

dox (520 Gnome)			
cameras 35mm			
Golf IA rapid	—	—	263 7
case	—	—	38 4
Golf IIA	—	—	552 0
case	—	—	65 1
drenaline (1091 Rybar)			
injection BP1963			
ibamycin GU (1263 Upjohn)†s4B T5			
tablets	30 41 7ea	—	—
	100 135 0ea	—	—
mokole (781 Lusty)			
tablets	50 21 0	5 3	3 0
	125 48 0	12 0	7 0
naprel (1123 5LL)			
(distributors 1556 Farillon)			
stral (509 Gibbs)			
soap toilet	10 4	2 7	1 3
bath	15 2	3 9½	1 10
netesol-N (518 Glaxo)			
nasal spray	15mils		
to Strath (29 Alfonal)			
vitamin tonic	8oz 18 9ea	—	25 0
toxexin (518 Glaxo) all products			
isks (175 BCP) 12oz	60 9	—	6 3
ue Star (177 BD5)			
itish Dental (177 BD5)			
itmarine (555 Haffenden)			
hot water bottle			
Nodland	46 0	—	5 9
nty (234 Cartwright)			
baby pants super	15 3	—	—
shampoo			
fergot (1098 Sandoz)			
tablets †s4B			
fergot Q (1098 Sandoz) †s4B			
ldecium (695 TK)			
9oz	30 0	—	3 9
lmitol (621 Horlicks)†			
ved-S (1237 Tillott)			
tablets	30 58 0	14 6	8 5½
	60 100 0	25 0	14 7
	240 31 0ea	7 9ea	54 3
	600 75 6ea	18 10½ea	—
eseril (1098 Sandoz) †s4B			
hydroergotamine (1098 Sandoz)†s4B			
sifix (1160 Solport)			
finger stalls	8 9	—	1 1
legant Touch (900 Norton)			
nail lacquer			
applicator	84 0	21 0	12 9
goapiol (261 Christy) †s4B			
godryl (938 PD) †s4B			
gometrine (179 BDH) †s4B			
go-Rondase (436 Evans) †s4B			
gotrate (413 Lilly) †s4B			
mergin (1098 Sandoz) †s4B			
llette (514 Gillette)			
razor Slim-Twist	35 1½	8 9	5 0
horne (520 Gnome)			
projector			
Alphax			
Major	721	—	579 6
Classic	746	—	289 6
avergol (1441 Wallace) †s4B			
arriet Hubbard Ayer (852 Molyneux)			
bronze			
permanent 165	—	—	21 0
althcrafts (584 H)			
althcrafts (29 Alfonal)			
apastab (147 Boots)			
orte vial 10 mils			
exley (491 GB)			
baby powder 3oz			
dusting powder 8oz & 16oz			
witch hazel jelly 2oz			
dergine (1098 Sandoz) †s4B			
tofer (68 AH)			
ampoules			
100mg x 2mils	100 245 11ea	—	—

A	Justo (1160 Solport)		
	wrist straps	32 6	— 4 0
R	Kerfoots (695 TK)		
	pastilles		
	Gees linctus		
	BPC †	11 6	— 1 6
	glycerine of		
	thymol	13 6	— 1 9
	mentholand		
	eucalyptus	13 6	— 1 9
	Kerofil (695 TK)		
	lozenges	28 17 0	4 3 2 6
A	Kute (1160 Solport)		
	wrist straps	27 6	— 3 6
	Lactagol (720 Lactagol)		
	tablets	60 28 5	7 1 3 9
D	tablets	48	
	Lanolin Gold (172 BMCL)		
	lather shave		
	cream	23 5	5 10 3 3

A = Price advanced
 R = Price reduced
 ● = New entry
 D = Delete
 C = Correction

Lenium (97 Bayer)			
sachet	20 8	5 2	1 0
(3 doz)	(3 doz)		
D	existing sachet	—	—
	Lingraine (97 Bayer)†s4B		
	Locabitol (1123 5LL)		
	(distributors 1556 Farillon)		
	Lusty's (781 Lusty)		
	back and kidney		
	herbs	17 0	4 3 2 6
A	bath cubes (6)	26 0	6 6 3 6
D	charcoal tablets 50	12 0	— 1 4
	charcoal tablets 60		
A	chlorophyll		
	tablets 5gr	100 17 6	4 4½ 2 6
	3gr	120 17 6	4 4½ 2 6
D	cigarette mixture		
	constipation		
	herbs	17 0	4 3 2 6
A	digestive		
	tablets	50 16 0	4 0 2 4
		150 35 0	8 9 5 0
R	Fullers earth		
	cream	14 6	3 7½ 2 0
D	gold seal for cigarettes		
D	mixture for pipe		
A	herbal		
	ointment 1oz	12 6	3 1½ 1 9
	cigarette		
	mixture		
	de luxe	16 6	— 2 0
	gold seal	21 6	— 2 6
A	pipe		
	mixture 2oz	8 6	— 1 0
D	8oz		
	gold seal	14 6	— 1 9
A	tablets,		
	special	50 16 0	4 0 2 4
		150 35 0	8 9 5 0
	Indian Brandee 2oz	9 0	1 9 1 4
	iodised vegetable		
	salt celery		
	pourer	12 0	1 0 1 6
	7oz	21 0	— 2 6
	garlic pourer	12 0	1 0 1 6
A	kelp powder		
	pure	4oz 16 6	4 1½ 2 4
		8oz	
D		7oz 24 6	6 1½ 3 6

A	malted tablets 1000	14 0	3 6	23 5
●	leechin			
	capsules	60 28 0	7 0	3 6
		120 52 0	13 0	6 6
A	lemon hand			
	cream tube	16 0	4 0	2 4
D	natural herb			
	tablets	50		
●	natural herb			
	tablets	60 13 6	4 4½	1 11
A	nerve tablets	50 16 0	4 0	2 4
		150 35 0	8 9	5 0
A	perfume, Indian Flowers,			
	Eastern Poppies,			
	Flor d'Orient	31 0	7 9	4 6
A	pilewort ointment			
	tube	19 6	4 10½	2 9
A	tablets	50 17 6	4 4½	2 6
A	raspberry leaf			
	tablets	40 13 6	3 4½	1 11
	tea	17 0	4 3	2 6
●	rheumatism			
	herbs	17 0	4 3	2 6
A	seaweed tablets	50 16 0	4 0	2 4
		150 35 0	8 9	5 0
A	and celery			
	tablets	50 16 0	4 0	2 4
		150 35 0	8 9	5 0
A	and sarsaparilla			
	tablets	50 16 0	4 0	2 4
		150 35 0	8 9	5 0
A	sleep inducing			
	tablets	50 16 0	4 0	2 4
		150 35 0	8 9	5 0
●	slippery elm			
	stomach			
	tablets	50 7 0	1 9	1 0
A	senna pods			
	Alexandrian loz	15 0	—	1 8
D	vegetable salt 7oz			
D	pourer			
A	witch hazel			
	B.P.C.	15 0	—	1 10
	Medihaler Ergotamine (1061 Riker) †s4B			
	Methergin (1098 Sandoz) †s4B			
●	Microfolex (1091 Rybar)			
	tablets	100 7 0ea	—	—
		500 23 10ea	—	—
D	Migril (208 BVV) †s4B			
	Misty (1092 Saga) existing entries			
	Misty (1092 Saga)			
	creme rinse			
	sachet	43 7	10 11	6
		(1 gross)	(1 gross)	
	cuticle remover	10 4	2 7	1 5
	hair spray			
	sachet	M.5 7 3	1 10	1 0
		M.4 12 8	3 2	1 9
	aerosol	6oz 32 8	8 2	4 6
		8oz 41 10	10 5	5 9
		16oz 53 4	13 4	7 6
	crystal clear			
	sachet	12 8	3 2	1 9
	aerosol	6oz 32 8	8 2	4 6
		8oz 41 10	10 5	5 9
		16oz 53 4	13 4	7 6
	New Yorker			
	aerosol	6oz 25 6	6 5	3 6
		16oz 43 0	10 9	5 11
	home perm	49 1	12 3	6 9
	instant nail dry			
	aerosol	6oz 32 8	8 2	4 6
	Mani-Cure	34 6	8 7	4 9
	polish remover	10 4	2 7	1 5
	Quick Set	35 9	8 11	4 11
	setting lotion	20 7	5 2	2 10
	shampoo's lanolin, lemon tonic,			
	medicated			
	sachet	29 1	7 3	4
		(1 gross)	(1 gross)	
	bottle	20 7	5 2	2 10

lacquer removing sachet	43 7	10 11	6	pumice stone	6 0	1 6	10½	A	Utella (1414 Strange)				
Step Up	(1 gross)	(1 gross)		sponge bag	12 0	3 0	1 9		hair wavers	13 4	3 4	2	
Moorland (234 Cartwright)	18 2	4 7	2 6	plastic					and curlers				
indigestion				Portyn (938 PD)	15 60 0	—	7 6		Valium (1704 Roche)				
biscuits	6oz 25 0	—	2 9	Templets	100 30 8ea	—	46 0		syrup 2mgm/5mls				
Naclex (518 Glaxo)				Predsol (518 Glaxo)					Vastarel (1123 5LL)				
tablets	50mgm 25			injection 1 mil & 6 × 1 mil					(distributors 785 Macarthy)				
25mgm 25				Red Star (177 BDS)					(distributors 1556 Farillon)				
Neo-Femargin (1098 Sandoz) †s4B				Rheumalene (781 Lusty)					Vibrona (466 FF)				
Neo-Naclex (518 Glaxo)				balm	21 0	5 3	3 0		Vibrona (400 JD&B)				
tablets 2.5mgm 25				Rosedale (261 Christy)					tonic wine	10oz 79 0	—	8	
5mgm 25				bubble bath					20oz 144 3	—	—	15	
No-Met (1414 Strange)				family pack	25 0	6 3	3 6		Victory (177 BDS)				
hair wavers				shampoo	25 0	6 3	3 6		Vinolia (509 Gibbs)				
and curlers	13 4	3 4	2 0	Rub-A-Dub (1160 Solport)					baby soap	9 1	2 3½		
Nurse Harvey's (578 Harvey)				loofah and					soap toilet	9 1	2 3½		
gripe mixture	21 0	5 3	2 10	turco gloves	34 0	—	4 3		bath	13 11	3 6		
all retail prices should be bold type.				loofah and					Yales (752 Lenton)				
Orgraine (917 Organon) †s4B				turco straps	56 0	14 0	8 3		support socks	pr. 12 6ea	—	18	
Parpanit (501 Geigy)				loofah straps	75 0	18 9	11 0		Springtime support hose				
tablets†				Sernylan Parenteral (938 PD) †s1s4A					seamed or				
forte†s4B				Slacks (781 Lusty)					seamless	pr. 19 8ea	—	29	
Personality (31 AP (distributors 1054 R&A))				rheumatism					AMENDMENTS AND ADDITIONS				
turtle oil bath				tablets	50 16 0	4 0	2 4		TO KEY TO SUPPLIERS				
soap	17 8	4 5	2 6	Sorosil (878 Napp) ointment †					400 JD&B=Jules Duval & Beaujoys, Ltd., Great Y				
Ponderax (1123 SLL)				Symbron (1091 Rybar)					Road, Isleworth, Middlesex. Isleworth 8224.				
(distributors 785 Macarthy)				antispasmodic					817 MP5=Mayfair Photographic Supplies (Lond.				
(distributors 1156 Farillon)				mixture	4oz 30 0	7 6	4 4½		Ltd., Kildare Close, Ruislip, Middlesex. Pinner 8				
Portia (1160 Solport)				Syntometrine (1098 Sandoz) †s4B					1556 Farillon=Farillon, Ltd., Chesham House, Ches				
actinotherapy goggles				Taoryl (501 Geigy) †s4B					Close, Romford, Essex. Romford 46021.				
child	16 0	—	2 0	Tube-o-Dents (177 BDS)									
adult	20 0	—	2 6	Urolucosil (1310 WWV)									
				tablets	25								

The
CHEMIST AND DRUGGIST

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